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# BETTER FRUIT

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MAY, 1921

NUMBER 11

U. S. Dept. of Agric.  
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THE MARLBORO RASPBERRY

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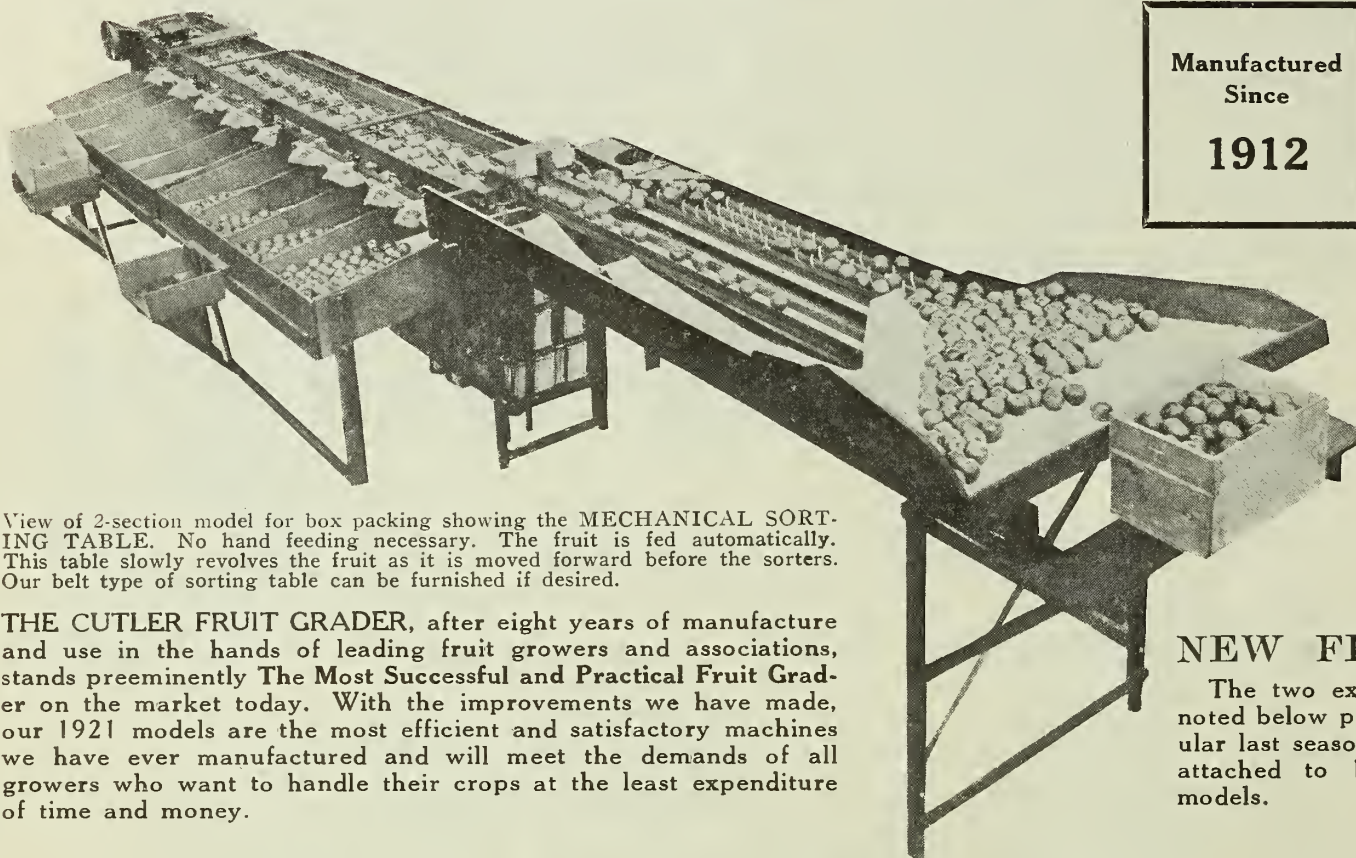


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Entered as second-class matter April 22, 1918, at the Postoffice at Portland, Oregon, under act  
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VOLUME XV

PORTLAND, OREGON, MAY, 1921

NUMBER 11

## The Canning Merger and the Northwest

By W. H. Paulhamus, President of the Puyallup and Sumner Fruit Growers Canning Company

**I**N REFERENCE to the advisability of organizing a big, strong well-financed canning company in the Northwest, it is a well established fact that the Pacific Northwest is capable of producing a greater volume of bush fruit per acre and of a better quality than any other section of the United States. It is also true that much raw material for manufactured products originates in the west. Is it advisable to ship our raw material to eastern manufacturers, permitting the East to create the payrolls necessary to manufacture from the raw materials to the finished product; or would it be more desirable for the residents of the Northwest portion of the United States to make a comprehensive survey of what raw materials they can produce to better advantage, quality and cost per pound considered, than can be produced elsewhere and endeavor to establish such industries on a permanent basis and of the highest grade?

New England has been exceedingly successful in organizing big, strong financial institutions for the purpose of conducting the manufacturing industry. In fact, the city of Boston alone has made it possible to organize hundreds of manufacturing institutions with an abundance of capital so that these companies could scour all sections of the United States picking up raw material and shipping it to New England to be manufactured into finished products. This has resulted in a wonderful dinner pail brigade in the New England states.

**I**T IS not my desire to criticise the Boston country for so doing, but on the other hand, to point out to our own people that this should be an object lesson for us to the extent that we should try to separate the wheat from the chaff and organize companies of our own so that we can not only produce the raw material, but manufacture it into a finished product, with the result that we will not only find employment

for the people who are now here, but many in addition. This is what builds up communities.

It is a well established fact that we have capital with which to manufacture, very largely because we have been purchasing stock in manufacturing or spec-



W. H. PAULHAMUS

President of the Puyallup & Sumner Fruit Growers' Canning Company, who believes that the Oregon-Washington canning merger should result in great benefit to the fruit industry in the Northwest.

ulative concerns that have not meant very much to the up-building of our particular community.

While in Boston seven years ago, my attention was called to a very fine team of horses hauling a very heavy load of wool on one of the principal streets. Upon inquiry I was told that no sheep were raised in that portion of the country, but that the wool was shipped in from either Washington or Oregon. This suggested to my mind the advisability of manufacturing our wool at home; and instead of shipping the raw material to the manufacturing centers of New England, it would be very much better for us if we were able to furnish employment to labor in our own com-

munity and ship the finished product. In fact, my mission to Boston was to sell berries in barrels to the jam manufacturers in that city, but the object lesson presented to me by the wool incident suggested that it was a good policy for the wool grower to have his product manufactured into finished commodities at home, and that it was also a good policy for the berry grower to do the same thing.

On going up to Portland, I found thousands of tons of small white beans were being shipped from the Pacific Coast country to Boston for the purpose of being manufactured into Boston baked pork and beans, and that a very large percentage of the codfish which has created so much aristocracy in Boston was shipped from the state of Washington.

**A**FTER viewing this condition I resolved to endeavor to help manufacture the bush berries of the Northwest into the finished product instead of sending the raw material to Boston, as we had formerly done.

During the year of 1920, with a liquid capital of about \$300,000.00, the Puyallup & Sumner Fruit Growers' Canning Company did a business of more than five million dollars for the reason that the banks were willing to advance all the money necessary to manufacture the raw material into the finished product providing the finished product was sold under good and sufficient contracts prior to being manufactured.

Under such conditions our local organization did not require very much capital, but now that the consumer is on a strike and does not desire to purchase anything unless it can be secured at less than the cost of production, it is necessary for all manufacturing plants to have sufficient capital in the business to operate in an orderly way.

It has always been my vision that unless the grower made a fairly good profit out of what he produces, he would not be much of an asset. In other words,



any business enterprise that is not profitable will soon perish. With this idea in view, if we can organize a big, strong canning and preserving company and have a management with a heart, we can not only stimulate the industry and develop it in an orderly way, but we can at the same time refrain from trying to purchase from the producer below the cost of production, and at the same time keep orderly control of the industry so that the jobber and retailer will not exact too much spread between the producer and the consumer.

With the right kind of business men in control of an enterprise of this kind, it should become a wonderful asset for the Pacific Northwest, and I am hopeful that the canning company that we have in mind may prove to be that kind of an organization.

### Merger Started

**T**RANSFER of properties to the recently incorporated Oregon-Washington Canning & Preserving Company has already started, the first unit to be taken over by the gigantic \$10,000,000 merger of the berry and fruit canning industry of Oregon and Washington being the properties of the Puyallup & Sumner Fruit Growers' Canning Company. These consists of plants at Puyallup and Sumner, Wash., and Albany, Ore., with stores and warehouses at Puyallup, Sumner and Orting and seventeen receiving stations in various parts of the two states. The properties were taken in at an appraised valuation of \$1,030,000.

This is only the first step in the big merger, the officers of which are now investigating various other properties with a view of taking them in as soon as possible that work may be done at once toward merging all interests in time for the opening of the berry season.

The Puyallup & Sumner concern last year did a cash business of more than \$5,500,000, its trade lines extending to every state in the union. In addition to the canneries and other buildings, there is now being completed at Puyallup a \$325,000 concrete, steel and glass jam plant which will have a total capacity of 270,000 pounds daily.

Announcement of the acquisition of the first unit was made by the organization committee of the new corporation. It was signed by H. C. Henry, president of the Henry Investment Company; Reginald H. Parsons, president of the Seattle National Bank; and Gordon C. Corbaley of the Meinrath-Corbaley corporation, all of Seattle; Chester H. Thorne, chairman of the board of the National Bank of Tacoma; W. R. Rust of the Smelter Securities Com-

pany, Tacoma; Henry Rhodes, president of Rhodes Company, Tacoma, and W. H. Paulhamus, president of the Puyallup & Sumner Fruit Growers' Canning Company.

The new corporation, which proposes putting the fruit and berry canning industry on a stable basis, backed by sound financial and business leadership,

## Methods of Training Bush Fruits

By J. L. Stahl, Horticulturist, Western Washington Experiment Station

**S**TRAWBERRIES need no training except to control runners. If the hill system is used all of the runners except just around the hill will be kept off. Where the narrow matted row system is followed a strip of 15 or 18 inches the length of the row will be allowed to fill with runner plants and a strip the same

greens are allowed to overlap 3 or 4 feet on the trellis, but beyond that they are usually cut back.

### RASPBERRIES

**R**ASPBERRY canes are usually supported and held in place by a trellis of two or more lines of number 12 or 14 wire. Sometimes the wires are strung on cross pieces of 1 by 4 or 2 by 4 lumber nailed to upright posts but often they are fastened with staples to the sides of the posts. Seven-foot posts are commonly used set two feet in the ground and 30 to 35 feet apart. It is important to have the posts set firmly in the ground. The hole should be large enough to receive the post and allow room for tamping soil on each side. Tamping should begin after the first shovelful of soil is placed in the hole and it should be continued until the hole is filled and the post firmly set.

### WEAVING SYSTEM

**B**Y the weaving system the fruiting canes are bent over and woven to the trellis either on one or both sides. The wire for these canes are strung at about 54 inches from the ground. Wires are also placed at a height of 24 or 30 inches to help hold the young



Raspberry Field in the Puyallup, Wash., District.

width between rows will be frequently cultivated and kept free from runners.

Raspberries, Blackberries and Loganberries are usually trained on a trellis by the beginning of the second season of growth. The last of February or early March is a good time for training. There are several methods or systems of trellising, but only a few of the more common ones will be described in this article.

The number of fruiting canes to allow in each hill will depend on the type of berry, individual plant, and system of training. In general, the number for raspberries is 5 to 8, loganberries 10 to 14 and evergreen blackberries 8 to 12. The weakest canes are removed entirely. Most growers cut back the lateral growth on the fruiting canes of evergreens either entirely or to a short stub. This is not so important with loganberries as the lateral growth is shorter. Lateral growth of raspberries is removed entirely. The tips of the canes of adjoining plants of logans and ever-



Glimpse of an Oregon Loganberry Patch.

canes in place during the early growing season.

Where weaving is done on one wire the other upper wire serves to hold the  
(Continued on page 16)



# The National Marketing Conference

By Arthur M. Geary, Delegate from Oregon

AT the national convention of fruit growers, held at the Congress hotel, Chicago, early in April under the auspices of the American Farm Bureau Federation, marketing was the principal topic under consideration. The idea of the convention originated with the American Pomological Society, whose members during the last seventy-three years have led in the study and development of the science of horticulture. The fact that the American Pomological Society stepped from its beaten path and initiated such a movement is in itself indicative of the vital importance of the marketing problem.

As a part of the marketing problem, the best methods of obtaining increased consumption of apples and other fruits was discussed. The American Farm Bureau Federation, with its present membership of two million farmers, of whom a large proportion live in the middle west and southwest, in itself offers an outlet for Pacific Coast-grown fruit. The figures available show in a startling way that large sections of the farm population of this country are not receiving the supplies of fruit that they should have and that they would gladly avail themselves of.

The convention recommended to the American Farm Bureau Federation that a horticultural department be established with a paid secretary who would take an active part in aiding in the development of new outlets for fruit among the farmers and their organizations.

The inter-relation of the interests of fruit-growing districts was shown. Improperly graded apples on the New York or any market reacts against the demand for all apples. If an apple is marketed after it has passed its prime, the consumer of it is not a booster of the consumption of other apples.

There has been the committee of seventeen for the wheat growing industry, and there is the committee of fifteen now at work for the livestock growing industry and as a result of the recommendations of this national convention, President J. R. Howard of the American Farm Bureau Federation is to appoint a committee of twenty-one for the study and formulation of a plan of marketing for the fruit growing industry. Under the plan suggested for the division of representatives of this committee, two will be appointed from Washington, two from California, one

from Idaho and one from Oregon.

It should be presumptuous in any one to predict what such a committee will develop after intensive study. The success of any plan formulated will depend upon its merit as the fruit growers of all districts will have the opportunity of accepting or rejecting.

If the plan has merit, the backing of the American Farm Bureau Federation should insure its success. The American Farm Bureau Federation has the singleness of purpose and the punch to put over a plan for the fruit growers just as it has already done for the wheat growers.

THE co-operative plan of marketing fruit has never had a fair chance in the Pacific Northwest. However, in California there is the California Fruit Growers' Exchange and the California Fruit Exchange, and in Florida there is the Florida Citrus Exchange which have national systems of distribution through agents, the hiring and firing of whom rests solely with board of directors composed of fruit growers.

The fruit growers of the Northwest have been quite successful here and there in co-operating in local units, but what opportunity has a local association to obtain proper distribution for the fruit of its members. Listen to the wail of the sales manager of one of the well established co-operative associations who for reasons of his own does not desire his name to be known:

"In passing I would say that the handling of our fruit products through brokerage concerns in the various markets is a very unsatisfactory method of selling. The broker, as you know, is supposed to represent the shipper, but in actual practice he is in such a position as between the shipper and the trade which he serves, that his interest lies rather with the trade than with the shipper. Most of the brokers handle various kinds, such as deciduous and citrus fruits as well as potatoes and other vegetables, and in many cases brokers handle a line of groceries and general merchandise as well. A good broker has so many accounts of the same class of fruit that he does not feel himself tied to any one shipper. In other words, the broker's business is so tied up to the good will of the trade that he very often cannot give the shipper strong support and fight his deals through as they should be handled if the shipper is to receive a square deal.

Especially in a year like the one which we are just concluding, the broker is inclined to favor the jobbers with whom he does business."

So much for the position of the local co-operative association that endeavors to market independently. It is true that brands that have become as well known as the Hood River Apple Growers' Association and Big "Y" as well as others are in demand and the organizations shipping under these brands have patrons that wire in to the local office for their supplies. But when there is a big crop, is the demand from casual buyers sufficient to dispose of the output of any of these local co-operative organizations at remunerative prices?

Now what can be said for the co-operative association of growers that ties up with one of the private national marketing systems; From the standpoint of the eastern speculators that have organized and control these marketing systems the plan is entirely satisfactory. It may be suggested that certain of these marketing systems will not speculate. Names of corporations mean very little, while the names of men who own and control these corporations mean everything.

It is not only of interest to the grower to know whether or not the brokers and agents that have been hired to market his fruit are also selling fruit in which they have speculated, but also it is important to the grower to know to whom his fruit is being sold. Mr. Armstrong, president of the Washington Farm Bureau Federation, has formulated plans whereby a permanent record can be kept of all fruit marketing transactions in the different markets. This is no more than is being done in various livestock markets at this time.

The charges and profits that do not appear upon the growers' statements constitute a big factor in the spread between the price the consumer pays and the price the grower gets. The forming of corporations bearing picturesque and impressive names has become a habit with the fruit speculators. One can but gasp at the effrontery of the representations of some of these speculators and combinations of speculators and then gasp again with surprise at the manner in which groups of growers swallow their hook, bait and tackle. As a matter of fact the speculators have been able to turn to their advantage the unwillingness of growers of different

(Continued on page 17)



## Conveyors and the Fruit Industry

By James C. Hunter, Conveyor Engineer D. E. Fryer & Company, Seattle, Washington

**T**O EXPEDITE the handling of fruit crops and other perishable commodities is one of the urgent needs of the day. Economics is the foundation stone on which the science of business is built. It underlies all business, just as mathematics underlies all branches of engineering and its general principles should be thoroughly understood when working out the problems confronting the equipment engineer of any

expensive method of transportation is still in use in very many places.

Gravity rolling belts and inclined conveyors, spiral chutes and straight lift elevators are well known equipment used in the handling of the large apple crops in the United States. The standard gravity conveyor systems have proved to be particularly well suited to the requirements of apple and fruit packers, and are now doing double time service in many apple and fruit packing warehouses in all parts of the country. In addition to the speeding up of the output, and at the same time reducing labor to the minimum, these conveyors perform all the hard work of transporting the products.



Unloading Apples Direct to Conveyor.

industry. The conditions in the handling of fruit are so exacting that mechanical equipment should be installed where it can save time and labor and avoid the large claims for damages arising from the rough man-handling of the fruit packer.

A rapid turnover of the fruit pack is a paramount demand, and when this is accomplished you are giving the orchardist, shipper and consignee service, and you are also reducing your excessive costs to a minimum. In the fruit packing industry, mechanical sorting machines have most entirely replaced the old hand method, but the old slow and

handle open baskets or boxes of any kind of fruit. This illustration shows by the arrow marks a box arriving at the packing plant and being placed on receiving lines of portable sections of gravity conveyors to inclined elevator and from there being rapidly transported to the packing room. After the packing process is completed, the filled cases are allowed to proceed on gravity conveyors leading to a spiral chute or a reverse operating inclined elevator, and by this means taken to one of the lower floors from which they are transported by gravity lines or horizontal belt conveyors directly to the piling space or to

cars for shipment.

Experience has shown that where fruit is received on a line of gravity and conveyed to the point allotted, one receiving door will do the work of some four or five doors where the boxes are merely placed in the opening and trucked in. The use of gravity roller conveyors does away with unnecessary delay in receiving fruit, and allows the orchardist to make more trips daily to the warehouse, which naturally pleases him, because there is nothing more annoying than to have to wait in line for hours before being able to discharge

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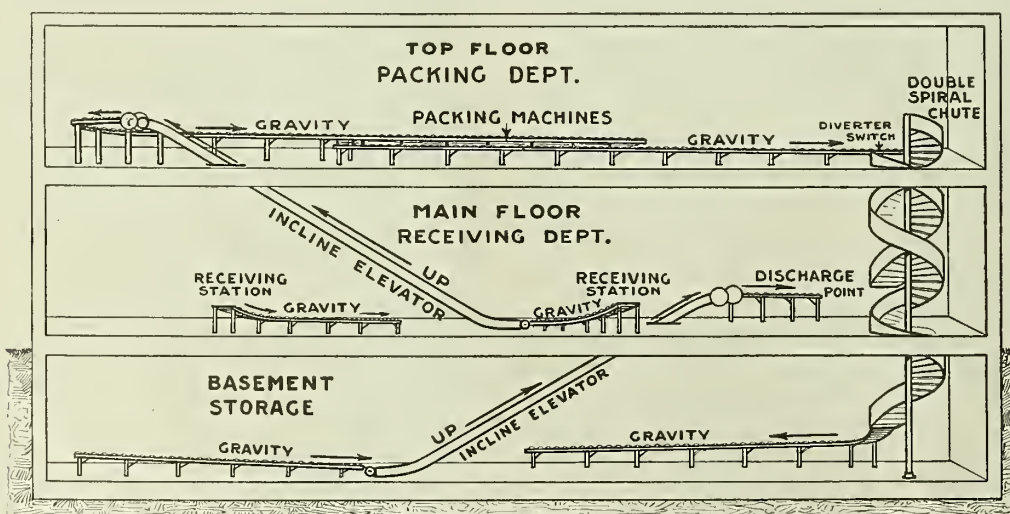
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Lay-out of a Standard Conveying System as Applied to Apple Packing and Warehouse Requirements.



fruit at the warehouse. This is especially so when warm days are causing the fruit to ripen quickly, or when the crop is likely to be caught by frost at night if it is not promptly received at the storage house and protected.

Recently I made a tour of one of the principal apple districts in the state of Washington and found to my amazement that in one large plant while the packing room was wonderfully well equipped, the old method of using four wheeled trucks was employed in receiving and shipping out of the basement—which was itself below grade level—in conjunction with a small elevator. Manifestly this was a slow and costly operation entirely too much dependent upon the human element.

While installing conveyor systems, the management should bear in mind that standardized equipment should be used which has been so designed, and which should be so placed that additional units may be added from time to time so as to make an enlarged but a perfectly operating system.

According to a recent report of the United States Bureau of Crop Estimates, the commercial acreage of strawberries in the United States for 1921 will show a considerable increase over that of the preceding year. It is estimated that the acreage in strawberries this year will be 57,219 acres as compared to 48,619 acres in 1920, giving an increase of 8,600 acres.

Orchard cultivation should start with a rush now. Clear, sunny days causes the ground to dry rapidly. It often pays to hire extra teams or a tractor in order to plow just at the right time so subsequent cultivation will be cheaper. —O. A. C. Experiment Station.

## The Wenatchee Fruit District

By E. H. McPherson

THE Wenatchee fruit district, which includes all of the fruit growing areas in Chelan, Douglas, Okanogan, and Grant counties, has the best prospects for the 1921 apple crop ever known in its history. Preliminary estimates made by District Horticultural Inspector P. S. Darlington, indicated a total yield of between 15,000 and 16,000 carloads of 750 boxes each, or between 11,000,000 and 12,000,000 boxes. A record breaking crop of summer fruit is also predicted, including cherries,

apricots, peaches, pears, prunes and plums, of which the estimated yield for the present year is 2,000 carloads.

This compares with the total apple yield of 9,500 cars in 1920, and 10,034 cars of summer fruit. It is also probable that there will be more planting of new orchards in the Wenatchee district during 1921, than for any season during the past five years. Nursery men estimate that 2,000 acres of fruit trees will be put out this year, most of which will be apricots, peaches, cherries and

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pears. In the western Okanogan irrigation district, extending from above Oroville to Tonasket, about 500 acres of summer fruit will be set out this year. This new planting is being done under contract with the Puyallup & Summer Fruit Growers' Canning Company of Puyallup. This company will establish a shipping station at Oroville and Tonasket from where the fruit will be sent to the main cannery at Puyallup. Strawberries, tomatoes, and other small fruits and vegetables will be planted between the rows of trees for the first few years.

The total area of orchards in the Wenatchee district is 35,000 acres, most of which is now in bearing, and divided among the counties as follows: Chelan county, 17,360 acres; Okanogan county, 8,480 acres; Douglas county, 6,350 acres; Grant county, 3,500 acres. Over 30,000 acres of this is in apples, which is the staple fruit crop of this district. This comparatively small area produced over 12 per cent of the entire commercial apple crop of the United States in 1919, and about 10 per cent of the entire commercial apple crop in the country in 1920. About one-third of the total amount of boxed apples grown in the United States are produced and shipped out of the Wenatchee district annually.

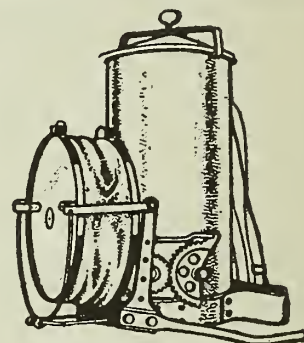
The total money value of the 1919 fruit crop in the district was \$22,500,000, or an average yield of about \$700 per acre, which is said to be the largest financial income per acre from any similar area of land in the entire world. The 1920 fruit crop returned to the growers less than \$15,000,000, owing to the decreased volume and lower prices received.

For the 1921 fruit crop, 60,000,000 feet of lumber will be required to make boxes. This is equal to the total timber yield of twenty sections of eastern

Washington pine land, or six sections of the heaviest western Washington or Oregon forests. About one-half of the boxes used in the district are made by local mills, while the rest are shipped in from Spokane, Seattle, Bellingham, Tacoma and even Portland.

Practically all of the land suitable for growing fruit, and capable of being irrigated has been taken up and put into orchards, in the Wenatchee district. Nearly all of the orchards are located in the valleys of the Columbia, Wenatchee, Entiat, Methow and Okanogan rivers, also along the shores of Lake Chelan. As a result of the unusual prosperity enjoyed by the fruit grow-

ers in this district during the past three or four years, the orchards are generally equipped with modern packing and storage houses, and the fruit growers live in fine modern homes and drive the best makes of automobiles. Their orchard work is done by the aid of tractors, and power sprayers, while trucks are used to do their heavy hauling. Horses are almost unknown throughout the more settled orchard areas. Good roads connect the orchards with the towns and shipping points, and also reach the many beautiful hunting, fishing and camping resources, which are easily accessible from every part of the district.



100 per cent  
Efficient

## Dust Your Orchard with the American Beauty Dust Sprayer

This powerful sprayer—built for orchard, field and vineyard—is one of the fastest, most thorough and economical dust sprayers ever built. The American Beauty, operated by one man alone, will economically spray 15 acres a day in orchard work, with the correspondingly greater acreages in field or vineyard.

Government experiments have proven the superiority of dry dust over wet sprays in the control of Red Spider, Thrips, Aphis, Leaf-Hopper and similar insects. Our dry dust preparations used in the American Beauty Sprayer are unequalled in the eradication of insect pests and fungus diseases.

Write for Detailed Information

**The California Sprayer Co.**  
6001-11 Pasadena Avenue Los Angeles



### Northwest Orchard Ladders

"The Quality Line"

For Sale by  
Leading Dealers Everywhere

**Northwest Fence and  
Wire Works**  
PORTLAND, OREGON



## Currant Grape Growing

**T**HE heavy importation of currants into this country and the profitable price received for them has caused considerable investigation on the part of horticulturists with the view of ascertaining the possibilities of producing the currant grape in the United States.

The viticultural investigations of the United States Department of Agriculture, therefore, have demonstrated that the choicest varieties of these currant grapes, which formerly it was believed could not be made to bear sufficiently, can be made to produce regular and good crops, and the specialists in the department state that this paves the way for the establishment of another very important and extensive grape industry in this country.

An exceedingly important feature in connection with this new fruit industry is that currant grapes are among the very earliest to ripen. In fact they ripen so early that they can be dried and put away before the earliest rains occur in districts where other raisin varieties are too late in ripening. In the present raisin producing sections of the country currants can be grown as an advance crop and cured and stored by the time other raisin grapes ripen, so that the same labor employed in harvesting and curing currant grapes can harvest and cure the other raisins after having accomplished that work.

Experiments made by the United States Department of Agriculture at the Fresno experiment vineyard indicate that when vines of the currant grape are planted at distances the equivalent of 8 by 8 feet apart, an acre of good vineyard in this country will yield from 6 to 15 tons (an average of 10½ tons) of grapes, or, conservatively, from 2 to 5 tons of cured currants. From this it is estimated that 3,400 to 8,500 acres would be necessary to produce the 34,000,000 pounds of currants which are annually imported into this country.

## The Value of Tillage

**T**HE importance of tillage cannot be too strongly emphasized. Many years ago a student of plant pathology coined the phrase "tillage is manure". This idea of the benefits of tillage still holds good and in fact intensive cultivation of all root crops is practiced to a greater degree today than ever before. Before plant food can be taken up by the tender roots it must be dissolved in water, the solution then being taken up by the roots. The finer the soil is pulverized the greater is the surface exposed to soil water, resulting in more plant food being dissolved and made available for the plant roots.



## Look for Paint

### That's Cracked or Checked

**D**ON'T let your protective coat of paint crack and come off. Even tiny breaks will let weather in, and that means decay.

You can't save by not painting, if your paint is wearing out.

Look for those signs and paint now, if you need paint.

The best paint spread more easily—saves labor cost. It covers more square yards—you buy more gallons of cheap paint.

The best paint, if properly applied, protects the house from five or more years longer.

There is no question as to which costs less. Don't allow surfaces to rot. It costs less to paint them.

### "72-Year" Paints

The best paints are scientific in formula and preparation. We've made them for 72 years—to meet weather conditions in the West.

The best materials—pure PIONEER WHITE LEAD, pure linseed oil, zinc, and color in scientifically exact proportions, arrived at through 72 years' experience.

Our process super-purifies and "whitens" the lead base. It must be fine enough to pass through a silk screen with 40,000 meshes to the square inch. A fine lead means easier spreading, and a more elastic, tougher protective coat. The "whiter" lead base means more beauty in the colors.



Such paint will last from five or more years longer than cheap paint, if properly applied, and look better through the years.

## Fuller's SPECIFICATION Farm Paints

House Paint - Barn & Roof Paint  
Wagon Paint - Rubber Cement Floor Paint

W. P. Fuller & Co.

Pioneer Manufacturers of Paints, Varnishes, Enamels, Stains and  
PIONEER LEAD for 72 Years.  
Branches in 16 cities in the West—Dealers everywhere  
Established 1849 San Francisco

Also makers of All-Purpose Varnishes, Silkenwhite Enamel, Fifteen-for-Floors Varnish, Washable Wall Finish, Auto Enamel, Porch and Step Paint and PIONEER WHITE LEAD.

### Free Books— Send Coupon

Send coupon for "Save the Surface," a free book which tells of the importance of good paint, and the need for painting now if your paint is wearing off.

Also ask for small booklet of Fuller's Farm Paints and Varnishes.

Ask our Specification Department any question that you'd like to have answered about painting—complete detailed advice is given free.

W. P. Fuller & Co.

Dept. F-15, San Francisco.

Please send me, without charge, a copy of "Save the Surface" and your small booklet of farm paints and varnishes.

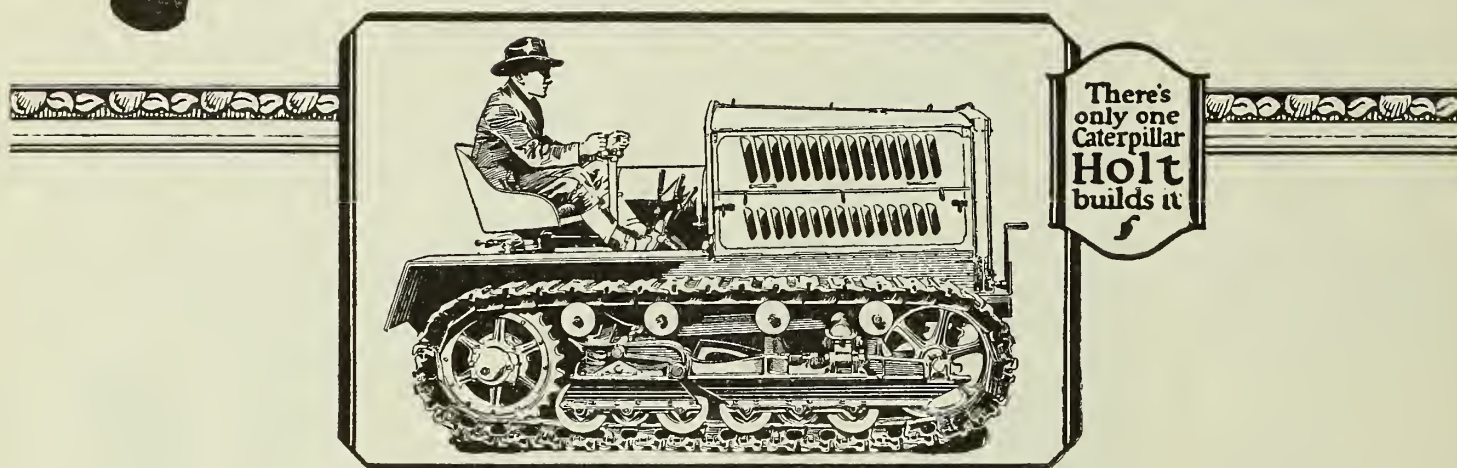
Name.....

Address.....

City..... State.....



# Low Cost Power for Orchards

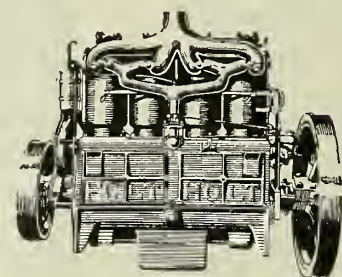


Here's the tractive power needed for orchard work—in compact, flexible form—and at a minimum cost. The "Caterpillar" 5-ton Orchard Tractor shares the record of larger "Caterpillar" Tractors for lowest cost per operating hour—for economical use of fuel and oil.

The "Caterpillar" 5-ton Orchard Tractor is narrow and low-down. It gets between, under and around trees in a closely planted orchard without hitting limbs or fruit. It is short turning, easy handling and has three speeds,  $1\frac{1}{2}$ , 3, and  $5\frac{3}{4}$  miles per hour. It has plenty of power for plowing and sub-soiling deeply.

Besides all of these special features the fact that it's a "Caterpillar" Tractor is assurance of long life, low upkeep and operating costs and dependable, trouble-free performance.

Get full information about the "Caterpillar" 5-ton Orchard Tractor now—see the Holt representative in your neighborhood or write us.



**The Holt Motor**  
—sold separately

Built for the severe requirements of tractor service it is especially adapted to economical operation of pumping plants and other farm work. It is a perfected motor of the valve-in-head type in 30, 45, 55, and 75 horse-power ratings. Holt accuracy and dependability guarantee its service.

## The Holt Manufacturing Company

Stockton, California

Peoria, Illinois

Spokane, Washington

San Francisco, Calif.

Los Angeles, Calif.



## Larger Sized Apples

**T**HE NEED for larger sized apples, as voiced during the past season by some of the largest handlers of Northwestern box apples again calls attention to the importance of thinning. In addition to this while the production of fancy apples is dependent upon many other factors such as spraying, pruning irrigating, etc., thinning is one of the most important practices in securing for the grower the highest market returns.

As competition in the apple industry of the country has become more keen the necessity of thinning to produce the highest grade of fancy box apple has become more apparent, although many apple growers have not yet realized the importance of practicing thinning in a systematic way. A well known authority on apple culture says:

"It no longer pays to grow ordinary fruit. There are but few localities in the United States in which medium to good sized apples cannot be raised. Therefore, ordinary fruit or the choice grade must compete with the home-grown product wherever it is shipped. On the other hand, localities in which strictly fancy apples can be raised are much less numerous and such grades compete less frequently with the home grown product. The larger the apple within certain limits, that is the larger the edible portion, the more highly it is valued. According to market standards, by increasing the diameter of the apple one-half inch, we increase its market value many times. By the removal of part of the crop at an early stage in its development, this increase in size can be obtained and it is usually impossible to obtain it otherwise.

"Although the increase in the current year's crop is ample reason for thinning, it is not the only benefit to be derived. By reducing the tree's crop this year, there is more likelihood of a good crop the following year. Much of the so-called habit of "alternate bearing" in apple trees is directly traceable to the fact that they overbear one year and recover from this overtax by bearing a very light crop the following year. Many broken limbs in the orchard can be averted by proper thinning and much time and money saved in propping the orchard.

"Methods to be used in the thinning operation will vary somewhat with the conditions, such as soil, age of trees, varieties and methods of irrigation and pruning. The fruitgrower should experiment and learn the best methods to use under his conditions. Some orchard-

ists thin to a definite number of boxes on a certain aged tree. This is determined by counting the apples on one or two trees. These counted trees are used as models and the rest of the orchard thinned accordingly. Other growers adopt the plan of thinning the fruit according to distance. The latter plan is much easier of adoption and produces the desired result where the work is carefully done.

"For the best results thinning should commence immediately after the June

drop, the work being done while the apples are about an inch in diameter. By removing the fruit from trees that are overcrowded at this time the remaining apples receive the entire strength and nourishment of the tree and reach a much finer degree of maturity. The cost of the work under average conditions is only slight compared with the increased returns, in addition to the fact that much time will be saved at harvest time in sorting the crop."



## Big Stumps—or Little!

Get them *all* out with



### STUMPING POWDERS

Du Pont and Repauno Brands

(Pacific Northwest Products)

**S**IZE makes no difference—they all yield to Du Pont or Repauno, now recognized as the farmer's best friends for land clearing.

Dynamite is the modern method. Most farmers use Du Pont or Repauno Stumping Powders because they are efficient, reliable, low-freezing and remarkably economical.

It costs money to clear land by hand labor—too much money, when dynamite is available to all to do the work at a fraction of the time and expense.

Right here in your own county many farmers are clearing their stump lands economically and efficiently with Du Pont or Repauno Stumping Powders,—Pacific Northwest Products.

Your dealer will supply you with Du Pont Explosives and Blasting Accessories.

Our free book, "Development of Logged-off Lands," shows you ways to clear land, dig ditches and plant trees with dynamite. Write for a copy.

**E. I. du Pont de Nemours & Co., Inc.**

Portland

Seattle

Spokane



# Some Reliable Northwest Nurserymen

## Unique Home Collection

Alwild Strawberry	Better Canner	FREE
Productive Everbearing	15 Plants	\$ .25
Sugar Strawberry	15 Plants	.45
Peerless Everbearing	15 Plants	.75
"New Race" Strawberry	15 Plants	.90
Duluth Everbearing	15 Plants	1.75
Lucky + Everbearing	15 Plants	5.00
Unique and one other	ALL PREPAID	\$9.10

## Evergreen Plantation

NEW MEADOWS, IDAHO

## OUR TREES

Carefully Grown  
Carefully Selected  
Carefully Packed

Will give satisfaction to the planter

## Salem Nursery Company

428 Oregon Building  
Salem, Oregon

*Additional Salesmen Wanted*

## Oregon Nursery Company

ORENCO, OREGON

Since 1867 Growers of  
**DEPENDABLE TREES**

Fruit and Ornamental  
Trees, Shrubbery,  
Berries, Roses,  
etc.

Large Illustrated Catalog  
sent on request.

## Yakima and Columbia River Nursery Co.

*Growers of Choice*

**FRUIT TREES  
SMALL FRUITS and  
ORNAMENTALS**

Yakima, Washington

*"Yakima Grown" is  
the best guarantee.*

This is to announce that I have resigned my position as President and Salesmanager of a Nursery Company, which position I have filled for over sixteen years, and I am now doing business under the firm name of

## E. A. Bennett Nursery Company

with a full line of fruit, nut, and ornamental trees and shrubbery.

I am now soliciting the patronage of the public. Assuring square dealing, first class stock at correct prices I am in need of a salesman in every nook and corner of the Northwest.

## E. A. BENNETT

1030 Chemeketa Street  
Salem, Oregon

## Capital City Nursery Company

SALEM OREGON

*Will supply you with  
first class stock in*

**FRUIT, NUT AND ORNAMENTAL TREES,  
SMALL FRUITS,  
ROSES**

*Send for catalog*

## BETTER FRUIT'S BIG FAMILY OFFER!

**OFFER  
A**

BETTER FRUIT for one year }  
Western Farmer, for one year }  
Good Stories, for one year }  
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**ALL FOUR for only**  
**\$2.70**

You Get All Five Publications by Returning This Coupon and \$2.70

This offer expires in 30 days. Order now and make this big saving

BETTER FRUIT, Portland, Ore.

Gentlemen: I am returning this Coupon with \$.....for which I am to receive Offer.....as listed hereon.

My Name is.....Town.....

Street or R. F. D.....State.....

## Fruit For the Garden

FOR home use red raspberries produce the best results when grown in hills and tied to stakes. Cultivated in this way they are easily kept within bounds and the grass and weeds are kept under control. The best way is to set three plants in a hill four or five feet apart. The object of setting three plants instead of one is to secure a good growth of canes and a crop of fruit the second year.

Stakes one and one-half to two inches in diameter and five to six feet apart are set in the center of each hill early in the spring and the canes are tied to these with a heavy cord near the top. The ends of the canes may be shortened a little or cut off just above the stake. To produce plenty of fruit for home use five or six canes are enough for each hill.

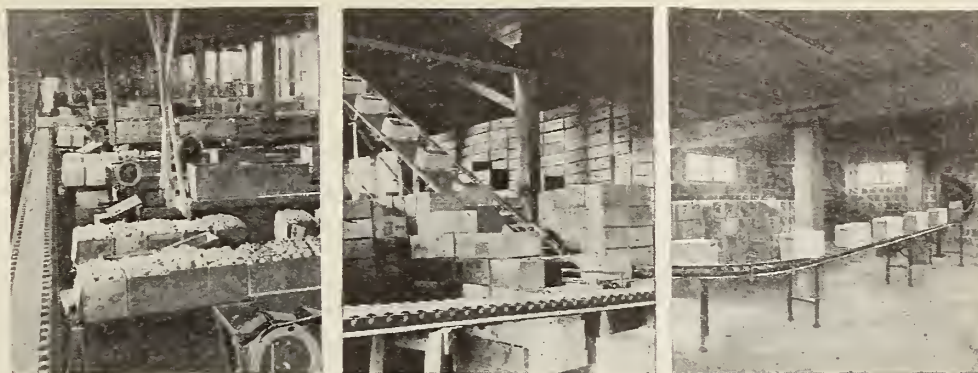


## Our Bulletin Service

**C**O-OPERATION of banks of the Pacific Northwest in assisting growers of this section to recoup losses of last year by taking advantage of frost damage in the eastern states is urged in a current Better Fruit Bulletin issued by this magazine and sent to every banker in the Northwest. It pointed out that a bumper crop was expected in this region because of ideal weather conditions and last year's short crop while the heavy eastern crops of fruit last year combined with frost damage this season meant an undoubted shortage there.

Harvesting costs being materially lower than last year should mean good, profitable prices for fruit on the Atlantic seaboard and abroad, asserted the bulletin, which called attention to the vital necessity of keeping up the necessary activities which alone can make certain a clean marketable crop. Letting down the bars means disaster, contended the bulletin, which held that the bankers' assistance in restoring confidence of fruit growers who have lost heart is invaluable at this time.

The Better Fruit Bulletin Service is part of the magazine's policy to back up the fruit industry of the Pacific Northwest.



## Let Gravity Move Your Fruit!

**A Standard Combination System** for the indoor transportation of your fruit in the course of receiving, packing, boxing and shipping.

**Wherever—Whatever** your handling problems are, there is a Standard Service within immediate reach.

Get in communication with our nearest sales office and have them become your conveying-efficiency assistant in planning with you a **Standard System** to meet your specific needs.

## Standard Conveyor Company

Formerly Minnesota Manufacturers' Association

NORTH ST. PAUL, MINNESOTA

*Write for catalog for the fruit-packer*

### WESTERN SALES OFFICES

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Los Angeles, Cal. 617 I. N. Van Nuys Bldg.  
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Salt Lake City, Utah Dooly Bldg.  
San Diego, Cal. 6th and Market

San Francisco, Cal. 417 Market St.  
Seattle, Wash. Lumber Exchange Bldg.  
Spokane, Wash. Paulson Bldg.  
Tacoma, Wash. 501-2 Provident Bldg.  
Butte, Mont. 431 Rialto Bldg.

## Good Stationery Dignifies Your Business!

**T**HE business farmer or fruit grower needs high-class stationery and envelopes. We create the kind of stationery which is a credit to the business which it represents. We are also the builders of effective advertising literature of all forms—booklets, folders, mailing cards or anything else you need to help you sell your product.

*Write us for full information.*

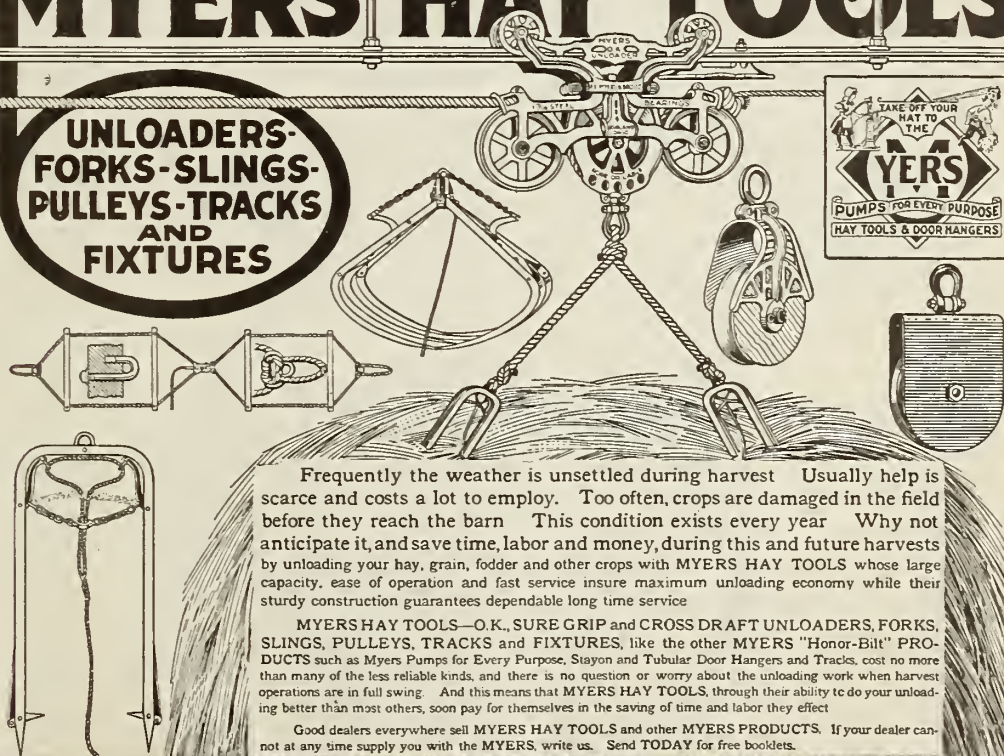


## The Arcady Company

12th and JEFFERSON STREETS  
PORTLAND, OREGON

## MYERS HAY TOOLS

**UNLOADERS-  
FORKS-SLINGS-  
PULLEYS-TRACKS  
AND  
FIXTURES**



Frequently the weather is unsettled during harvest. Usually help is scarce and costs a lot to employ. Too often, crops are damaged in the field before they reach the barn. This condition exists every year. Why not anticipate it, and save time, labor and money, during this and future harvests by unloading your hay, grain, fodder and other crops with MYERS HAY TOOLS whose large capacity, ease of operation and fast service insure maximum unloading economy while their sturdy construction guarantees dependable long time service.

MYERS HAY TOOLS—O.K., SURE GRIP and CROSS DRAFT UNLOADERS, FORKS, SLINGS, PULLEYS, TRACKS and FIXTURES, like the other MYERS "Honor-Bilt" PRODUCTS such as Myers Pumps for Every Purpose, Stayon and Tubular Door Hangers and Tracks, cost no more than many of the less reliable kinds, and there is no question or worry about the unloading work when harvest operations are in full swing. And this means that MYERS HAY TOOLS, through their ability to do your unloading better than most others, soon pay for themselves in the saving of time and labor they effect.

Good dealers everywhere sell MYERS HAY TOOLS and other MYERS PRODUCTS. If your dealer cannot at any time supply you with the MYERS, write us. Send TODAY for free booklets.

**F.E. MYERS & BRO. NO. 135 ORANGE ST. ASHLAND OHIO. ASHLAND PUMP AND HAY TOOL WORKS**

Pacific Northwest  
Distributors



Portland, Oregon  
Spokane, Wash.

**BUY FROM THE LOCAL MITCHELL DEALER**



## BETTER FRUIT

Published Monthly  
byBetter Fruit Publishing Company  
406 Lumber Exchange Building  
PORTLAND, OREGONW. H. WALTON.....Editor  
JERROLD OWEN.....Associate Editor  
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...San Francisco Representative, Hobart Bldg.

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In the United States, \$1.00 per year in advance.  
Canada and Foreign, including postage, \$2.00,  
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Advertising Rates on Application.

## Financing the Grower

**T**HERE is one point that will greatly help in making the coming season in the Northwest fruit industry successful and that is for bankers and other financial agencies to lend their utmost assistance to the grower. As in many other lines of business at the present time the fruitgrower needs financial assistance and it is only by receiving it that he can produce the maximum results in the way of producing the greatest volume of high-grade fruit. It is necessary that he be enabled to continue to practice the best methods in crop production, despite the fact that uncertainty and unrest are reported to be causing the grower to take a somewhat pessimistic view of the situation.

With reports of greatly reduced crops owing to frost damage, in most of the fruit growing sections of the country, with the exception of the Pacific Northwest, the outlook for a profitable season in the latter region appears to be exceedingly good. Financial assistance, therefore in helping the grower to take advantage of producing and placing on the market one of the largest and best crops ever shipped out of the Northwest should not be lacking.

The close co-operation of the financial institutions of the Northwest in this respect will inspire a confidence that the fruit growing industry greatly needs

and should result in a short time in stimulating every effort toward a general betterment of conditions.

## Shipping by Water

**A**LTHOUGH recent statements made by authorities in the railroad world to the effect that freight rates should come down as greater economy in the operation of the roads develop are encouraging to the fruitgrower who must ship his product across the continent to find a market, the success in shipping fruit by water through the Panama Canal is much more encouraging. It is more encouraging because this mode of transportation at a reduced rate can be taken advantage of in the near, rather than in the remote future, for fruit shipments to the Atlantic seaboard and for export.

And this is what the Pacific Northwest fruitgrower needs, and needs now—a relief from transcontinental freight rates that are so high that Eastern apple growers during the past season were able to sell a barrel of apples at a profit for what it cost the Northwest grower to produce and ship. While it is quite probable that the two steamship lines that have announced that they will handle large shipments of apples through the canal this year will do so largely for export, still the establishment of these water routes from the Pacific Northwest is the opening wedge that must lead to coast to coast shipments. At any rate the handling of a large volume of the export box apple trade from the Northwest at a reduced rate by steamship lines will be a big factor in making it possible for many growers to sell their product on a margin of profit.

These all water routes, therefore, should be supported by being given all the tonnage that they can handle in order that the service may become as extended as possible.

## Our Advertising

**W**E BELIEVE that the advertising in *Better Fruit* should be just as interesting to our readers as the articles and news matter. Modern advertising is educative. It is written nowadays to keep the reading public posted on the

latest and most efficient ways of doing business or of engaging in some special industry, as well as to bring to the attention of the reader the particular article which the advertiser has to offer the public.

In fact, the advertisement of today is a story—a sales story devoid of the extravagant and unreliable statements which so often characterized the merchant's or manufacturer's appeal for business through the printed page in the past. In its place we have as a rule a plain statement or sales argument from the advertiser in presenting his wares to the public. Along with this is the fact that local and national associations of advertisers are just as anxious to see that nothing but advertising that bears the stamp of genuineness is placed before the public and they act as a safeguard against unscrupulous advertisers.

The advertising in *Better Fruit* embodies the best and most reliable that can be presented to its readers and we are satisfied that they will find its perusal both interesting and profitable.

## The Outlook

**T**HE INCREASE in freight rates, high production costs, a general curtailment in buying and the deflation program all had their influence in making the past season for deciduous fruits in the Northwest from being as profitable as preceding seasons.

Indications now are that the coming season should be much more favorable. So far weather conditions have been admirable in the Pacific Northwest for a good crop of all fruits, while producing costs along most lines show a tendency to come down. The outlook for improved business conditions in the near future are promising as well as the probability of a widening of the export trade for all American fruits.

Co-operative and other agencies for handling the Northwest fruit crop are getting in line on a much more settled basis than seemed possible a few weeks ago, so that expectations now lead to the belief that the coming year should show a successful outcome for the fruit industry generally.



## Bits About Fruitmen and Fruit Growing

THE REPORT that a new company is being organized to operate the eight large Rupert canneries in Oregon and Washington is welcome news to the fruitgrowers of the Northwest, who have found these institutions to provide an excellent market for their cannery products. The reorganization of the company is taking place under the direction of H. F. Davidson who was recently elected president of the Rupert company, and a committee of bankers and businessmen, with the assistance of the creditors who express themselves as anxious to see the Rupert company again put on its feet. The canneries which will be turned over to the new company are located at Newberg, McMinnville, Falls City, Roseburg, Lebanon and Springbrook, Oregon, and at North Puyallup, Wash. The valuation placed on these plants exceeds \$400,000 and they have a capacity of 750,000 cases of fruit and vegetables annually.

▲ ▲ ▲

LATE investigation of the extent of the damage caused by the freeze in the early part of April to fruit in the middle west and east is to the effect that the loss runs into many millions. The loss was made much worse by the fact that tree fruits in all sections of the country were much further advanced than they have been in many years. Even the south did not escape, as the loss in the Cumberland-Potomac-Shenandoah fruit belt is variously estimated at \$10,000,000 to \$15,000,000. The huge loss to fruit in the east is causing fruit men in the Pacific Northwest to regard the coming season for the marketing of fruit from this region from an optimistic viewpoint.

## "In Every Respect" says the Good Judge



You get more genuine chewing satisfaction from the Real Tobacco Chew than you ever got from the ordinary kind.

The good tobacco taste lasts so long—a small chew of this class of tobacco lasts much longer than a big chew of the old kind. That's why it costs less to use.

Any man who has used both kinds will tell you that.

*Put up in two styles*

W-B CUT is a long fine-cut tobacco  
RIGHT CUT is a short-cut tobacco

Weyman-Bruton Company, 1107 Broadway, New York City

## Men who KNOW your truck engine

Your truck engine was designed to stand up and give full service. It's an investment that must show returns.

To give full service your truck engine must be correctly lubricated.

Our Board of Lubrication Engineers recommends the correct grade of Zerolene for the lubrication of your truck engine. These lubrication experts *know* your truck engine, know what it should do to give you a fair return on your investment.

Follow their recommendations as given in the Zerolene Correct Lubrication Chart. Ask for one. Use Zerolene for Correct Lubrication.

STANDARD OIL COMPANY  
(California)



*A grade for each  
type of engine*



## Training Bush Fruit

(Continued from page 4)

young canes in place after they have reached that height. Picking is done mostly from one side. Where weaving is done on both upper wires, half of the canes of each hill are trained to one wire and half to the other. This plan gives greater spread between canes on the wires. Picking is done from each side.

The weaving system is an easy and fast method of training the fruiting canes and when well done it is usually very satisfactory.

### UPRIGHT SYSTEM

**T**HE upright system requires a similar trellis, but the fruiting canes, instead of being woven to the wire are left upright and tied with a heavy string. When in fruit, the upper part of the canes will bend down within reach of the pickers. The young canes growing upright are held between the upper wires during the picking season and are not easily injured.

By this system training can also be done either on one or both upper wires.

The fruiting canes may be removed from the field and burned just after harvesting or just before training the new canes to the trellis in the spring.

Some growers, instead of trellising raspberries, prefer to cut off the tops of the fruiting canes at a height of about six feet. The berries produced are larger but not as early. The topping is best done just before the leaf growth starts in the spring.

### LOGANBERRIES

**C**URL and fan system. Two common methods of training loganberries are to curl or spread the fruiting canes on two or three wires strung one above the other and stapled direct to posts 20 to 25 feet apart. Where two wires are used one is about 32 and the other 54 inches in height. The canes are raised on the wires and curled in a

more or less spiral form in both directions or spread out fan-shape. Where there is considerable wind it is best to tie the canes near the tips to the wires so that there is no chance of loosening.

The young or new canes are left on the ground and kept under the trellis during the growing season by bending heavy wires in the form of arches or by placing cross sticks every few feet along the row.

Evergreen system. Another system quite similar to that for training evergreen blackberries is used by some of the best loganberry growers with excellent results.

### EVERGREEN BLACKBERRIES

**O**VERHEAD system. A good system for training the evergreen is to place the fruiting canes on a trellis of two wires and cross slats supported by cross pieces nailed to the posts at a height of about four feet from the ground. The wires are usually strung about 20 inches apart. The cross slats are notched to fit the wires and are placed about two feet apart. The canes are usually serpentine fashion over and under alternate slats and are held firmly to the trellis.

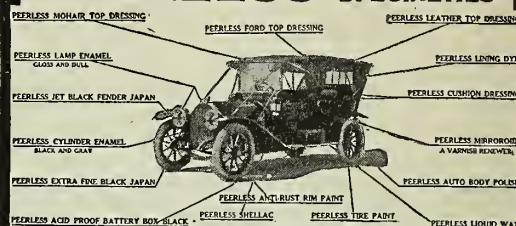
During the growing season the new canes are carried to a similar trellis about two feet above the fruiting canes. The cross pieces and slats on the trellis need not be quite so long nor the wires so far apart as on the trellis supporting fruiting canes.

Both trellises are supported by 8-foot posts set between plants 16 or 18 feet apart and two feet deep. Nine-foot posts well braced are used for ends. The trellis supporting the fruiting canes is of number 12 wire and number 14 for the new canes.

After the fruit is harvested or in early spring before the buds begin to swell the old canes are removed and burned and the new ones dropped to the lower trellis.

A common method of training ever-

## PEERLESS AUTOMOBILE SPECIALTIES



### Make Old Cars Look Like New

Your own car can be dressed and refinished in a few days ready for use—from the top to the tires—and when you overhaul the motor you need Gasket Shellac for tight gaskets.

### THE GOODS AND WHERE TO USE THEM

#### Mohair Top Dressing.

Waterproofs leaking tops and at the same time dyes faded material a black uniform color.

#### Leather Top Dressing.

A black oil dressing that renews and softens leather and imitation leather tops.

#### Lining Dye.

Dyes stained and faded linings a black uniform color.

#### Cushion Dressing.

Brightens and renews leather and imitation leather upholstery.

#### Ford Top Dressing.

Brightens, preserves and renews Ford top material.

#### Lamp Enamels. (Gloss and Dull)

Rich air drying enamels, cover solid with one coat.

#### Cylinder Enamels. (Black and Gray)

Fine air drying gloss, heat, grease and gasoline resisting enamels.

#### Black Japan. (Extra Fine)

A fine air drying gloss enamel for all round use.

#### Fender Japan. (Jet Black)

A heavy bodied, rich gloss, air drying enamel for hoods and fenders.

#### Liquid Wax.

A hard drying wax polish in liquid form. Easy to apply and polish.

#### Auto Body Polish.

An oil polish to brighten and renew varnished surfaces.

#### Mirroroid.

A clear varnish for owner's use where the finish has lost its lustre.

#### Battery Box Black.

An acid resisting enamel for wood and metal.

#### Rim Paint.

A protective coating. Keeps rims from rusting and allows tire to be removed with ease.

#### Touch-Up Black.

A quick air drying gloss enamel for all round use.

#### Gasket Shellac.

Goes in tack quickly. Makes a perfect seal on all kinds of gaskets. Very Heavy Body.

#### Carbon Remover.

A liquid that removes carbon and gives the motor more power.

#### Color Finishings.

Air drying enamels for owners to paint their cars. Dry over night. In the 8 colors: Straw Color, Yellow, Gray, Red, Blue, Green, Black and White.

Ask the Garage and Supply Dealer for catalogue and the goods. Complete directions on the back of each can tells how to use them. Sold in red lithographed cans.

Made only by

**THE COLUMBUS VARNISH CO.**  
COLUMBUS, OHIO



Arsenate of Lead 6-200  
No Spreader

# Spreado

THE PERFECT SPREADER

## Ready for Use

Simply stir into the spray solution. "Spreado" produces a uniform coating completely protecting the fruit. "Spreado" increases the adhesiveness of the spray, especially desirable in rainy sections. "Spreado" increases the wetting and covering power of the spray, more than paying for itself in the saving of spray materials. "Spreado" does not in any way injure the foliage or fruit. "Spreado" is highly recommended as a spreader by Professor A. L. Lovett, Oregon Agricultural Experiment Station. Write for prices and samples.

Manufactured by

**MILLER PRODUCTS COMPANY**

Sold by

**OREGON GROWERS' CO-OPERATIVE ASSOCIATION**

SALEM, OREGON



Arsenate of Lead 6-200  
with 3 lbs. "Spreado"

GRANTS PASS, OREGON

MEDFORD, OREGON



greens is to trellis the fruiting canes at about four feet in height and the new canes underneath about 18 inches from the ground. When training is done the new canes are raised to the upper trellis.

## Marketing Conference

(Continued from page 5)

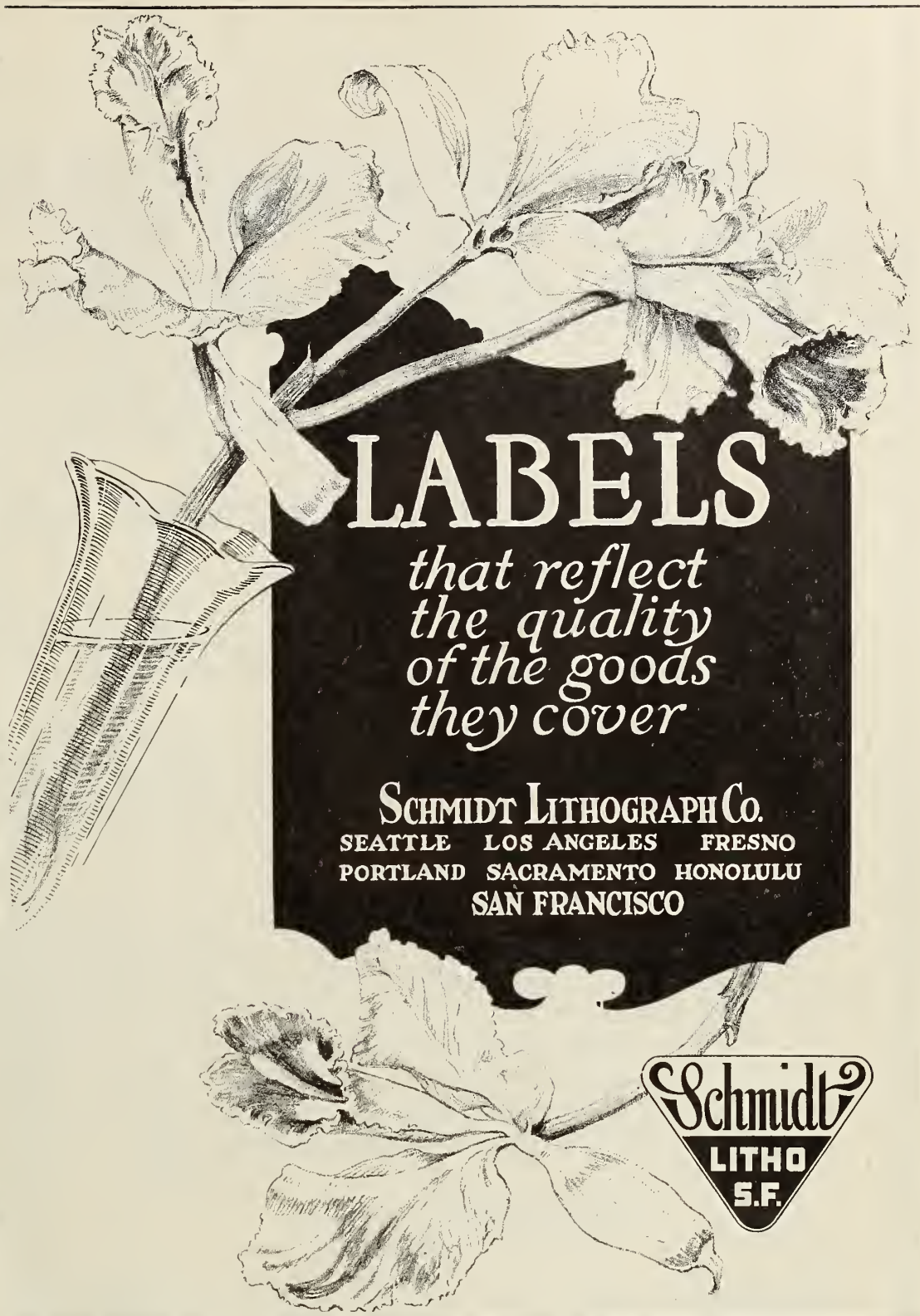
districts to consolidate their marketing machinery.

**T**HE FAILURE of the North Pacific Fruit Distributors has been a monument which certain speculators have been prone to point out to growers of the Northwest. The details of the plan of this organization were made subservient to the desire to get tonnage. The large salaries that were paid to the bell wethers of the different growing districts and the little attention that was devoted to developing a marketing system, will surely not be repeated.

The committee to be appointed by the American Farm Bureau Federation will include representatives of the Florida growers and of the California growers and of organized growers and authorities throughout the country. Its deliberations will be concerning not how to get more tonnage, but rather how to get an economical distribution.

There should be no personal attack upon individuals and private marketing interests that are not endeavoring to mislead the growers. There should simply be an elimination as far as possible of unnecessary factors and a stabilization of prices paid for fruit and the profits realized thereunder.

The national convention passed a resolution, however, warning the growers not to tie up their tonnage with private marketing concerns under the impression that they are participating in the movement towards co-operative marketing by so doing.



# LABELS

*that reflect  
the quality  
of the goods  
they cover*

**SCHMIDT LITHOGRAPH CO.**  
SEATTLE LOS ANGELES FRESNO  
PORTLAND SACRAMENTO HONOLULU  
SAN FRANCISCO

**Schmidt**  
LITHO  
S.F.

## Box Shooks

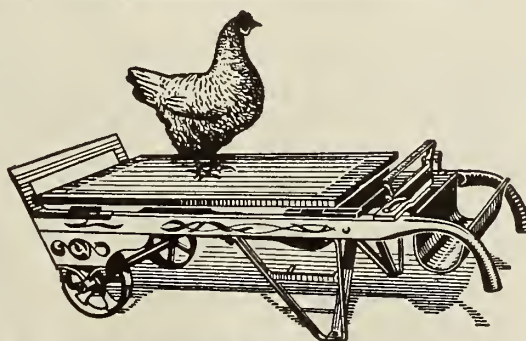
East Side Box Co.

Manufacturers

SPRUCE AND  
HEMLOCK

## Box Shooks

Foot of Spokane Avenue  
Portland, Oregon



Weighs accurately, from 1 pound  
to 1 ton

### Dealers

Write for terms, prices and  
open territory

## Renfrew Portable Scale

If you sell ANYTHING you need a  
**RENFREW**

Weigh your berries for the cannery before they leave your farm—it saves much time at point of delivery. Your spuds or cull apples for the cider mill all must be weighed.

This fine weighing machine is a combination Scale and hand truck. You can wheel it to the object to be weighed and weigh it accurately on uneven ground.

**J. C. Robinson Co.**

55 First St

Portland, Ore



1901

Twentieth Anniversary

1921

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*—It Is the Best Ever*

The painstaking work of our 50,000 carefully selected local correspondents, 13 experienced traveling field men, and 75 skilled office employees is well reflected in the up-to-the-minuteness and accuracy of our ratings.

The 1921 Blue Book contains hundreds of new shipping towns, showing the shippers in those towns, as well as many new shippers, receivers, commission merchants, brokers, jobbers, etc. in old towns, with full ratings on all. The shipping indices, Law Digest, Trading Rules and Grades, Brokerage Rates, and other encyclopedic information has been brought up to date.

The twenty years of ancient history accumulated in our files, coupled with the continuous revision of our ratings—OUR RATINGS ARE IN A CONSTANT STATE OF REVISION—make our ratings the safest guide in existence for the fruit and produce trade. Every credit man knows that antecedent information is one of the most vital fundamentals of credit, and hence, ratings. Authoritative antecedents can only be gathered at the time of happening. When gathered later they are hearsay and hence are not as dependable. During twenty years of endeavor we have carefully assembled and verified the history of the handlers of the perishable products of the farm and orchard, and our entire organization is busy the year round doing just this, keeping our Produce Reporter Members posted up-to-the-minute at all times.

The "BLUE BOOK", while a vital part of Produce Reporter Service, is by no means all there is to it. Membership Service consists of:

**Blue Book**  
**Credit Sheet Weekly**  
**Supplement Quarterly**

**Detailed Reports**  
**Legal Advice**  
**Business Advice**

**Inspections**  
**Adjustments**  
**Collections**

**Arbitrations**  
**Railroad Claims**  
**Exchange Bulletin**

Each one of the features is essential to your business and especially in this year—of low commercial morality—when many of those who were stable and reliable a few months ago are near the rocks and an unusual number of difficulties are arising daily. Great credit discrimination is essential NOW, so get the national authority—the well and reliably known Blue Book and attendant service.

THE PRICE OF FULL MEMBERSHIP HAS BEEN \$85 SINCE 1908

## Produce Reporter Company

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Chicago, Illinois

New York

Boston  
Sacramento

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Yakima

Baltimore  
Cleveland

Los Angeles  
Detroit

San Francisco  
Philadelphia



## Oregon Growers' Association Notes

**P**ROSPECTS for a splendid crop of apples were never better in Western Oregon, according to reports received by the Oregon Growers' Co-operative Association. And not only are there indications of a fine crop, but sizes will probably be large. This favorable condition is due to the excessive moisture of the past winter, which has added largely to the vitality of the trees, and also to the fact that many trees have recovered from the great freeze of December, 1919. With these favorable conditions and at the same time reports of damage in the middle western states, as well as along the Atlantic seaboard and into New England, and a complete failure of the Arkansas apple crop, the indications are that the box apple crop of the Northwest will be sold on a high market.

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**B**ERRY conditions are also favorable in Western Oregon. Due to the large amount of moisture of the past winter, loganberry vines are looking especially vigorous. There has been a heavy planting of loganberries this past season and with the increase of the past year, and a fairly favorable market established, it is thought that in the Willamette valley alone the acreage will approximate 10,000 within a few years.

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**N**URSERYMEN report the planting of about 150 acres of filberts in the Willamette valley. C. I. Lewis of the Oregon Growers' Co-operative Association, says that Oregon and Washington can produce the finest filberts and walnuts in the world and that in these two states there are 10,000 acres adapted to filberts and walnut growing.

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**I**N SOME parts of the Willamette valley there has been planting of the Mortemorency cherry, which produces a crop in about five years. It is said that this cherry is favored by canners.

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**L**EAFF SPOT or anthracnose has done great damage to gooseberries the past few years and growers to combat this disease, are urged by Harry E. White, field representative of the Oregon Growers' Association, to spray carefully. The first indications of leaf spot, Mr. White says, are small black spots on the upperside of the leaf. Later on the leaf begins to turn yellow and will drop off by mid-summer. Spraying for this disease of the gooseberry leaf should not be delayed. The first should be an application of Bordeaux mixture using 5-5-50 strength. Then immediately after blooming period, the same of a 3-3-50 strength and after picking, again of 3-3-50 strength. After spraying the three times, if there is no indication of the disease, additional spraying is not necessary. But if there are signs of leaf spot, spraying should be continued every three or four weeks until fall.

### CANNERY NOTES

**T**HE business men of Rupert and Paul, Idaho, have under contemplation the erection of a \$60,000 canning plant at the latter place.

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**T**HE California Peach and Fig Growers, who recently purchased a site two blocks long at Merced, will build the first unit of a packing house this season that will be 80 feet wide by 120 feet long. The building will be of partial concrete construction with concrete floors and the work of building it will be commenced in time to have the plant finished in time to handle this year's fig crop.

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**A** PROCESS adopted by the Hood River Canning Company for making strawberries available for use in filling chocolates has resulted in this new confection being placed upon the market. Although many experiments have been made heretofore by candymakers in attempts to make strawberries firm enough for this purpose they have met with failure. The entire berry is used and the demand for this new candy specialty has become so popular that it is expected that much of the high-grade fruit handled by the Hood River company will be processed for this purpose in future. The variety of berry being used is the Clark Seedling.

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**T**HE incorporation of the Falls City Canning Company with a capital stock of \$50,000, to be located at Falls City, Oregon, was recently announced. The incorporators are C. J. Pugh, J. A. Griswold and W. H. Weaver.



Make the "unseen" trees in your orchard produce

Your apple orchard is able to produce much more than it does now. By using

### NITRATE OF SODA

an apple grower increased his crop at the rate of 100 bushels of apples.

Write now for facts showing how you can use the "invisible" trees that are on your lands.

DR. WM. S. MYERS  
Chilean Nitrate Committee

Los Angeles, California  
231 Douglas Building

Quality

F.C. STETTNER MFG. CO.

PORTLAND, ORE.

LABELS

CARTONS

DESIGNED LITHOGRAPHED PRINTED

Musical Merchandise	WE SAVE YOU MONEY!	SHEET MUSIC
Write Us	M. Martius Music House, Inc.	Write Us
	1009 First Avenue, Seattle, Washington	
	Everything Known in Music	

### Interplanting

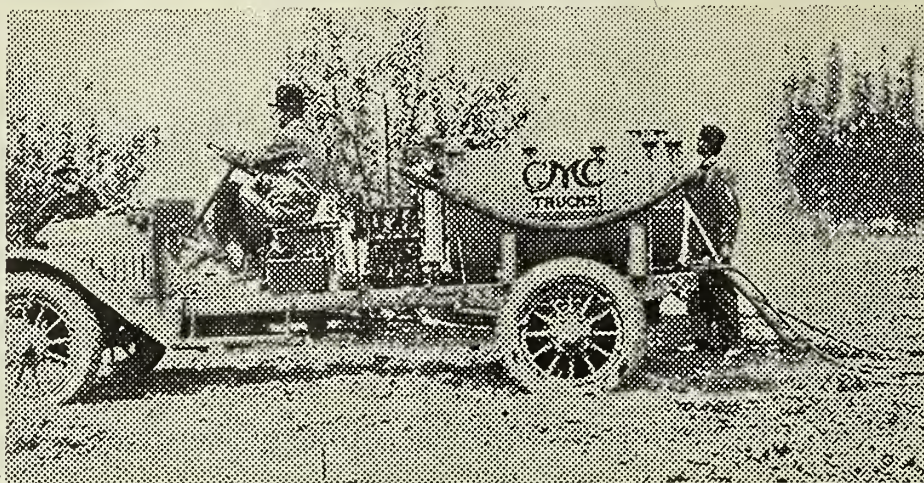
**A**S AN interplanted crop in cherry orchards, gooseberries and currants may be left several years depending on the growth of the orchard and the size of the bushes. In apple and pear orchards they may usually be left somewhat longer although the ground occupied should be restricted to one or

two rows of bushes through the center of the space between the rows. Otherwise the bushes will interfere with the proper care and cultivation of the trees.

As an interplanted crop in young orchards, currants and gooseberries, if properly handled are a profitable crop and provide an income in a short time until the tree fruits come into bearing.



*Spray  
the*



*GMC  
Way*

## *Time is Money*

Why waste one-third of your time going to and from your filling station with your spray rig?

Your time is money. Save it by spraying the GMC way with a steady high pressure that will surprise you.

Your investigation invited.

Seattle  
Spokane

**ELDRIDGE *Buick* SALES CO.**

Yakima  
Walla Walla

*GMC on a Truck Is Like U. S. A. on a Bond*

## North Pacific Coast Line

*Joint Service of*

**The Royal Mail Steam Packet Company—Holland-America Line**

*Fast Freight Service Between*

VANCOUVER, B. C.—PUGET SOUND—COLUMBIA RIVER—SAN FRANCISCO—and  
LOS ANGELES HARBOR

LONDON—LIVERPOOL—HULL—ROTTERDAM—AMSTERDAM—ANTWERP—  
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### FROM PACIFIC COAST

S. S. NOORDERDYK Loading End May  
S. S. EEMDYK Loading Middle June  
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S. S. MOERDYK Loading Middle August

### FROM EUROPE

S. S. EEMDYK Loading April  
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***All Steamers Equipped with Large Coolrooms and Refrigerators for the  
Transportation of Fish, Fruit, Cheese and Other Perishable Cargo***

*For freight rates and space apply:*

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Sub-Agents—A. M. Gillespie, Inc., Arctic Bldg., Seattle. Phone—Elliot 3526.

ASTORIA—E. M. CHERRY.

VANCOUVER—The Royal Mail Steam Packet Co., Pacific Bldg. Phone—Seymour 7108.



## What They are Doing In California

**JOHN NAGLE**, manager of the California Fruit Exchange, predicts a shipment of 40,000 cars of fresh fruit out of the state in 1921.

OF the 3,066,871 cases of the 1920 pack on hand January 20th last, the California Cannery League report a reduction of over 1,000,000 cases.

THE decrease in the acreage in cantaloupes in the Turlock district this year is reported to be about 1,000 acres less than last year.

A FREEZE which visited the state during the early part of April it is believed will involve a 50 per cent loss to capri or early figs. That this loss will curtail the production of Calimyrna figs also is certain, according to J. F. Niswander, vice-president and general manager of the fig association, on account of the fact that the Calimyrna fig is dependent upon the capri fig for pollenization.

RESPONDING to the demand of farmers and orchardists for more information on the quality of the various dusting materials on the market, the division of chemistry of the California state department of agriculture is now engaged in a special study of the matter. Manufacturers have been warned to exercise more care in labelling and to correct certain misleading statements which have been made in some instances.

ACCORDING to late reports a bumper pear crop is forecast for California this year. It is stated that the increase will probably be 45,000 tons over the 1920 production of 90,000 tons. The raisin crop of 1921 is predicted to be 225,000 tons.

SACRAMENTO canneries started their season this year by putting up a large tonnage of spinnach. It is reported that the biggest pack in the history of the fruit and vegetable industry of the Sacramento valley is expected by cannery officials this year.

To get a fine misty or fog-like spray with some life behind it from low-powered spray rigs, decrease the number of rods in use and the size of the openings in the discs of the spray nozzles.

NOW is the time to send to  
**Milton Nursery Co.**  
MILTON, OREGON  
For their 1921 Catalog  
Full Line of Nursery Stock  
"Genuineness and Quality"

The ONE thing  
that agrees with  
all the family  
and that all the  
family agrees on

Say "Gear-ar-delly"

Since 1852 D. GHIRARDELLI CO. San Francisco

# GHIRARDELLI'S

## Ground Chocolate

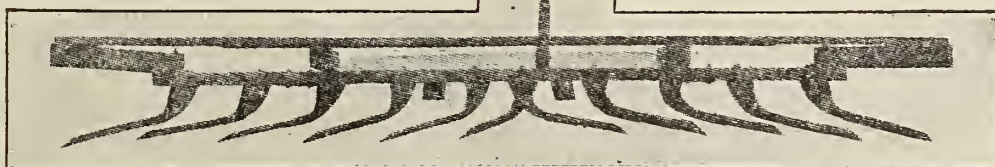
## The KIMBALL CULTIVATOR—and a Perfect Mulch!

### How to Use the Kimball to Keep Your Orchard in Perfect Condition

The first thing in the spring, as soon as the ground is dry enough it should be well plowed or disced both ways, or diagonal if the trees are planted in that manner.

The rest of the season nothing is needed but the KIMBALL, which should be run over the ground at least twice each month during the summer, or as soon as the ground is dry enough after a hard rain or after irrigation.

This will break up the crust and stop evaporation, for when the soil bakes and opens in cracks is the time of the greatest evaporation.



More cultivation and less irrigation will produce better fruit, and it will keep longer than where too much water is used.

The Dalles

W. A. JOHNSTON, Mfg.

Oregon



## Sex of Strawberries

STRAWBERRIES produce two types of flowers, imperfect, or pistillate and perfect, or staminate. Imperfect or pistillate flowers contain pistils, but not stamens, while perfect or staminate flowers contain both pistils and stamens. Pollen, which is produced in the stamens is essential to the setting of fruit. A variety with perfect flowers, therefore, can produce fruit when planted by itself, but one with imperfect flowers can not set fruit unless perfect flowering plants are near to furnish pollen through the agency of bees or other insects. Because of this, varieties having imperfect flowers are not as desirable as those having perfect flowers, and fewer of them are grown. However, some of the sorts having imperfect flowers or "imperfect varieties," as they are commonly called, are very productive and are liked in certain sections. Imperfect varieties also are injured less by the strawberry weevil than perfect sorts, since this insect feeds on pollen, and in regions where it is serious, imperfect sorts are often grown in relatively large proportions. However, they form less than 5 per cent of the total acreage devoted to strawberries in the United States and their planting appears to be decreasing.

Where imperfect varieties are used the usual practice in planting is to set one row of a perfect variety for every two or three rows of imperfect ones.

There are certain varieties of strawberries that under ordinary conditions produce flowers having both stamens and pistils, but frequently, under peculiar weather conditions, they produce so few stamens that they do not have sufficient pollen to insure the setting of fruit. A variety producing an abundance of pollen should be planted with such varieties in the proportion that perfect varieties are usually planted with imperfect ones.

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## Northwest Fruit Notes From Here and There

### OREGON

THE LARGEST prune deal of the season was announced during the early part of the past month when the Drager Fruit Company of Salem purchased 1,450,000 pounds of Italian prunes in Oregon and Washington for shipment to Germany. Of the quantity purchased 1,025,000 pounds were bought from the Oregon Growers' Co-operative Association, 300,000 pounds from the Washington Growers' Co-operative Association, and 125,000 pounds from the Dundee Prune Growers' Association. The sizes were 70-80s, 80-90s, 90-100s, and 100-120s, and the deal is said to have cleaned up these sizes in the Northwest. The purchase is believed to have constituted the largest single shipment ever made in this section of the country.

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STATISTICS recently compiled give the apple acreage in Western Oregon during the past season as follows: Benton county, 1,336 acres; Clackamas county, 1,630 acres; Douglas county, 3,-

287 acres; Jackson county, 5,091 acres; Josephine county, 400 acres; Linn county, 225 acres; Marion county, 2,417 acres; Polk county, 1,600 acres; Washington county, 1,500 acres; Yamhill county, 1,550 acres. According to this report Hood River county leads the state in apple acreage with 11,770 acres; Wasco county coming second with 5,660 acres and Jackson county third, with 5,091 acres.

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THAT the state of Washington is rapidly expanding its loganberry industry, of which Oregon now has 85 per cent, is shown in the fact that there were shipped from Marion county, Oregon, during the past winter 2,000,000 loganberry plants to be set largely in Northern Washington. On a basis of 660 plants to the acre this would mean that more than 3,000 acres of new plants would be in bearing in Washington in two years. Oregon is credited in recent reports with 5,500 acres and C. I. Lewis of the Oregon Growers'

# BUY FROM THE SPECIALIST

We deal in Box Shook and Kindred  
Lines Exclusively

Box Shooks - Car Strips  
Lath - Bracing Material  
Pine - Spruce - Hemlock - Fir

SAWN OR ROTARY CUT  
for packing fruits, vegetables, etc.

Delivered Prices quoted to any point in the U.S.

Send your inquiries to the nearest office,  
as listed below

## Federal Box & Lumber Co.

PORTLAND, OREGON

### Branch Sales Offices

15 Park Row  
New York City

Central Savings Bank  
Bldg.  
Denver, Colo.

128 North Wells St.  
Chicago, Ill.

R. R. Ave. & "B" St.  
Yakima, Wash.



Co-operative Association estimates that within a few years there will be 10,000 acres of loganberries in bearing in Oregon.

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THE PRODUCERS' Canning & Packing Company, recently organized at Salem, has taken over the canning, packing and evaporating plant of the F. A. Kurtz Company and will operate it along co-operative lines. The plan is to have growers purchase stock in proportion to their acreage, which will entitle them to have their fruits processed and marketed, less the actual



costs of these transactions and 5 per cent of the selling price. The company is capitalized for \$125,000 and it is stated that more than \$100,000 worth of the stock has been subscribed. F. A. Kurtz will be manager of the company.

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A REPORT from the Hood River district is to the effect that wages of orchard labor there will be considerably reduced this year. Help that last year received \$100 per month, it is stated, this season will receive from \$65 to \$75 per month.

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FROSTS damaged fruits in some sections of the state during the past month. Strawberries are reported to have been injured to some extent in the Eugene district, while stone fruits and pears were considerably damaged in the Medford section.

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WITH 600 acres in strawberries this year Hood River is looking forward to a crop of 100,000 crates if the weather conditions continue favorable. Although a keen demand is anticipated for this season's crop, it is not expected that prices will rule as high as they did last year, when the record average price was received.

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#### WASHINGTON

ESTIMATES of the acreage planted to berries in the state of Washington compiled by the district horticultural inspectors of the state are as follows: Strawberries, 2,100 acres; raspberries, 1,900 acres; loganberries, 350 acres; blackberries, 675 acres.

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ACCORDING to a check made in the early part of April by E. E. Samson, representative of the International Apple Shippers, there were 98,591 boxes of apples in common storage at Yakima at that time and 16,720 boxes in cold storage. To clean up the crop before the season for soft fruit shipments it was estimated that it would be necessary to ship out 150 carloads of apples weekly for two months. It is stated that this is a greater amount of apples unsold in the Yakima district at this time of year than in any previous season.

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A REPORT from Prosser is to the effect that the apple crop there has been entirely disposed of, at satisfactory prices. This statement has caused considerable interest in Northwest apple shipping circles as the reverse has been the case in many of the districts.

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TO DO a general fruit and produce business John H. Wilson, F. C. Barthell and John H. Roberts have incorporated the Spokane Commission Company with a capital stock of \$15,000. Mr. Wilson is president of the company which has leased a warehouse.

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AT a meeting of the creditors of the Bohlke Fruit Company at Wenatchee, which recently failed, it was decided to have the affairs of the company administered by a trustee under the direction of a creditors' committee. A report submitted by C. W. White, secretary of the company, showed that the total assets have a value of \$1,167,000 and that the liabilities amount to \$1,328,000. Included in the assets are two warehouses at Cashmere and Wenatchee, over 200 acres of bearing orchard, which should yield 125,000 boxes of apples this year and 450 carloads of apples unsold, in addition to accounts receivable of about \$200,000. The liabilities include \$580,000 due to growers and \$200,000 due to other creditors. It was shown that nearly \$1,200,000 had been paid out by the Bohlke Company to growers in the Wenatchee district before it became insolvent.

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THE announcement is made that another large berry ranch has been started in Skagit county. The berry acreage is being planted by Charles C. Calahan near Burlington and consists of 33 acres. The varieties being planted are strawberries, evergreen blackberries, raspberries and loganberries.

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REPORT from Prosser is to the effect that fruit bloom in that district was the earliest in years. Judged by the bloom the crop is expected to be one of the heaviest ever harvested in that section.

▲ ▲ ▲

A CLASS of eleven ex-service men enrolled in vocational training work at the Washington State College recently made a ten-day tour through the apple growing districts of the state to secure practical instruction in cold storage practice and



## A pipe's a pal packed with P. A.!

Seven days out of every week you'll get real smoke joy and real smoke contentment—if you'll get close-up to a jimmy pipe packed with cool, delightful, fragrant Prince Albert!

You can chum it with a pipe—and you will—once you know that Prince Albert is free from bite and parch! (Cut out by our exclusive patented process!) Why—every puff of P. A. makes you want two more! You can't resist such delight!

And, you'll get the smokesurprise of your life when you roll up a cigarette with Prince Albert! Such enticing flavor you never did know! And, P. A. stays put because it's crimp cut—and it's a cinch to roll!



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WINSTON-SALEM, N. C.

Prince Albert is sold in toppy red bags, tidy red tins, handsome pound and half pound tin humidors and in the pound crystal glass humidor with sponge moistener top.

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the  
national  
joy  
smoke



Improves alkali soil, transforms potash and phosphorous into plant food. Prevents wire worms, smutty grain and potato scab. 220 lbs. per acre has increased crops up to 600 per cent.

Write for circulars 6, 7, and 8, price list and samples.

DIAMOND "S" BRAND for Lime-Sulphur Solution. ANCHOR BRAND for dry dusting. CARBON BISULPHIDE for rodent control.

**SAN FRANCISCO SULPHUR CO.**

624 California Street  
SAN FRANCISCO, CAL.



### Our 1921 Annual Catalog

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145 Second St., Portland, Ore.



orchard management. The class made the tour under the direction of H. Noel Bakke, member of the teaching staff of the elementary science department.

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IN the Zillah district, where there has been considerable new orchard plantings the varieties are chiefly confined to pears, peaches and prunes. The pears planted are almost entirely Bartletts, the peaches Elbertas and the prunes largely of the Standard and Italian variety with a sprinkling of Tragedy.

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AN experiment in the treatment of collar rot which will be watched with interest was recently conducted at Natches, Wash., by County Horticulturist C. W. Hauck. It consisted in scraping the affected portions of the tree and applying a coating of Bordeaux paste, bridge grafting the roots still alive and the grafting of three young trees to the old above the diseased section by the inarching method. The experiment was made in the presence of 25 orchardists, many of whom have trees that are affected with this disease.

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## IDAHO

ACCORDING to William Crapo, manager of the largest canning and packing plant in Northern Idaho, there will be a decrease in prices paid to growers in that section for fruit and vegetables during the coming season. This is due, Mr. Crapo says, to the fact that many canneries were hard hit last year by the slump in foodstuffs and large losses prevailed throughout the West.

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UNDER the direction of C. G. Andrus, horticultural inspector for Nez Perce county, a power spray machine was recently put into service by the authorities of the city of Lewiston, and an intensive campaign against diseased trees conducted. The step was taken to insure proper treatment of all trees or shrubs affected with scale as previous experience had demonstrated that hazardous methods were permitting the disease to spread. Spraying has been made compulsory, both in Lewiston and Clarkston and the municipal authorities have control of the operations.

## A Banking Service for the Horticulturist

A complete banking service is offered you through our various departments.

Our officers welcome the opportunity of advising you how best to use these departments. Or a little booklet outlining the functions of each department may be had from the tellers upon request.

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The first national bank west of the Rocky Mountains

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Good standard grades. Well made. Quick shipments. Carloads or less. Get our prices.

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**SIMPSON & DOELLER CO.**

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PORTLAND, OREGON.

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HOURS-STOCK LABELS FOR PEARS,  
APPLES, CHERRIES & STRAWBERRIES.

# The Success Ewing Orchard Ladder

Scientific tests and calculations insuring

**MAXIMUM STRENGTH**

**MINIMUM WEIGHT**

## Clear, Bone-Dry Spruce

6 foot Ladder weighs 24 lbs.  
8 foot Ladder weighs 27 lbs.  
10 foot Ladder weighs 31 lbs.  
12 foot Ladder weighs 40 lbs.  
14 foot Ladder weighs 44 lbs.  
16 foot Ladder weighs 53 lbs.

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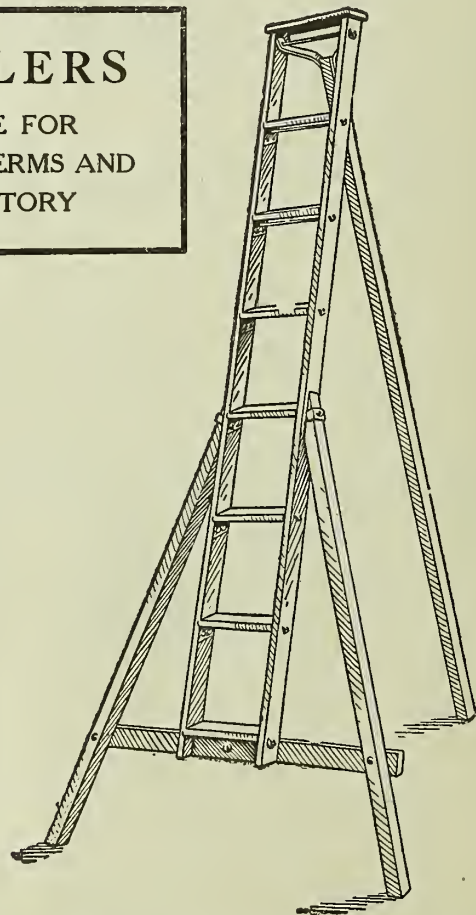
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PEA AND BEAN THRESHERS, ETC.

## DEALERS

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PRICES, TERMS AND  
TERRITORY





## Our New Water Export Gateway

By Charles A. Malboeuf

NINETEEN hundred and twenty marked the inauguration of direct water service between Pacific Coast ports and Europe. As a starter some 300,000 boxes of Northwest and California apples were shipped to British and Holland markets by steamer under refrigeration, and reached their respective destinations under record conditions that challenge admiration.

The average time between loading and discharging ports was thirty days, and the amount of cooorage required at unloading ports did not exceed three boxes per one thousand. The condition of the fruit on arrival, which was confirmed by subsequent inspection on the markets, was ideal. It did not suffer deterioration in the cold storage chambers of the vessel any more than it would have in the most efficient cold storage plant at shipping point.

Service begets service to the same degree as results beget results. The man who originated that axiomatic expression, while he perhaps did not say so aloud, or write it down for public benefit, evidently had the idea of efficiency tagged on to it in his own mind. It is certain that to have accomplished such results as the Holland-America line have displayed in their initial efforts, efficient management of the highest order played a very important part.

There has been a lot of talk about export markets and direct steamer service. Here it is already established and its first season finished in a fashion I think any one will agree surpasses our most earnest hope. Better still, we will have a second line of refrigerator vessels of the most up-to-date type, the Royal Mail Steam Packet line, to help move the 1921 crop. This service with that of the Holland-America, will give to Pacific Coast fruit districts, a total cold storage space of upwards of 500,000 boxes of apples.

London, Liverpool, Antwerp, Amsterdam, Rotterdam, Havre, Hamburg and other European markets will be reached direct through this new element in transportation. Sailings will be every three weeks early in the shipping season and during the heavy periods of movement, approximately every two weeks. Allowing three round trips per vessel, this service will provide a carrying capacity for the combined fleets of around one and one-half million boxes of apples for the season.

Granting that these schedules will be carried out, as we have every reason to believe they will, we can readily perceive the great possibilities now within



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are a risk-proof investment. Backed by 82 years of dominant reputation for unquestioned quality, for uniformity to formula and for scientific accuracy of preparation the Grasselli label is your protection against disappointment at harvest time. See that this label is on the spray material you order. At conveniently located dealers in every fruit and farming community.

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**LABELS and CARTONS**

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our grasp for the development of foreign trade which were so effectually hampered by our former indirect facilities. Certainly this is the beginning of a vast change in our exporting system and although the change is a sudden one, there is no reason why we should

not put it into effect and strike our gait right off the bat this very season.

Up to March 26 New York state had shipped 20,000 more barrels of apples than at the corresponding date last season.



## With the Poultry

### CONSTRUCTING A TRAP NEST

A TRAP nest should be so constructed that when a hen enters, her back raises the door. This releases the catch or trigger and allows the door to close. The catch regulated by a screw or nail at the lower inside edge, should be set so that it just holds the door. It should have a washer on the screw to prevent sticking and a guard to keep away the nesting material. A variation may be made for large or small hens by shortening or lengthening the catch which supports the door or by adjusting the size of the triangular notch to the door itself.

The following directions are given by the United States Agricultural Department's specialists for constructing a three-compartment trap nest:

Cut four seven-eighth inch boards for ends and partitions, 12 inches wide by 19 inches long; enough one-half inch boards  $39\frac{1}{2}$  inches long, laid lengthwise, to cover the top, back and bottom, and one strip  $39\frac{1}{2}$  inches long and one and one-half inches wide for the front of the nests. Cut three pieces of half-inch boards, 12 inches long and three inches high, to hold the nesting material away from the door.

Nail the top, back and bottom to the ends and partitions, insert the three-inch strips in the nests and make the guard, nailing it to the left side of the nest. Bore a hole in the catch large enough that the catch will move freely when screwed into position on the side. Place a washer on the screw between the catch and the side of the nest. Insert a screw at the lower edge of the catch to stop it when set, so that it will just hold the door.

Make the doors of seven-eighth inch material, 12 inches by six inches and cut a triangular notch in the center four inches wide at the bottom. Put two screw eyes in the top of the doors and bore holes in the front of the nests, two inches below the top (inside measurement), through which a three-sixteenth inch wire is run to support the doors.

Attach to the front of the nests a narrow strip upon which the hens can jump. Place a button or block of wood on the front of each partition to hold the door when the nest is closed. If the nests are to be placed below the dropping board, a wire top should be used with a five-inch strip of wood on the front edge of the top to stiffen them.

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### SELECTING SHOW FOWLS

SUCCESSFUL exhibitors of show fowls do not leave anything to guess work. They begin the selection of the fowls soon after the chicks are hatched, figuring that unless the chicks are properly grown and fed that they may mature into typical representatives of their breed, they can not be considered as likely candidates for exhibition. The first actual selection of the birds to be ex-

## B E E S

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Eggs from 221-egg hens mated to cockerels from 300-egg hens.

Place your order now for May and June delivery. Write us for prices on Pullets from the same stock. Send for our Poultry Supply Catalog.

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# Depend on the Reliable Diamond Quality Poultry Foods

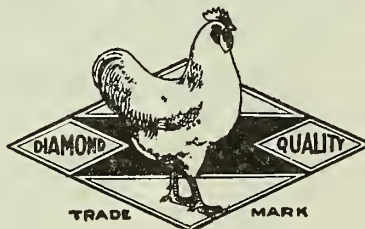
## Diamond CHICK FOOD



Diamond Chick Food is the safest, most dependable and satisfactory food for all young fowls. It is carefully prepared and correctly proportioned to produce a quick and profitable growth without loss. No dust; no waste; a complete food.

Made to a Standard

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Diamond Scratch Food is an *All-Grain* ration, complete, economical and satisfactory for every feeding requirement from the three-weeks-old chick to mature fowls. A perfect "working ration" greatly relished by the fowls, and a sure flesh and bone builder.

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## Diamond EGG FOOD



Diamond Egg Food is the ideal laying mash. Starts hens laying and keeps them at it. Hastens molting and puts hens in fine condition. An unequalled food for young chicks. Can be fed wet or dry.

Write today for prices and for our Catalog which lists the best of everything for the poultryman.

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hibited is usually made by carefully observing the fowls as they appear in the yard or on the range. This is usually two months or not less than a month, before sending them to the show. While making these observations the main point that is kept in mind is to have the birds embody as near as possible all the general characteristics of the breed to be exhibited.

#### POULTRY NOTES

**A** GOOD insecticide for the poultry house can be made with a pint of kerosene in a gallon of whitewash. It is also a good plan to paint the roofs with kerosene.

**T**O PREVENT leg-weakness, bowel diseases and other ills give the young chicks an opportunity for plenty of exercise.

**F**OR feather eating try giving the fowls sulphur. The way to give it is one teaspoonful for every three birds, in the soft feed twice a week.

**G**REEN food is required by the little chicks as soon as they get out of the downy age. If they are let out on grass this requirement is taken care of. If not it should be provided. Cabbage, lettuce, kale, beets and similar vegetables will serve this purpose.

**B**ONE meal will not take the place of green cut bone as a food. It is a good thing, however, to have the meal in a handy feeding place so the chicks can get at it if they want it.

**A** GOOD way to feed milk to poultry is to soak stale bread in it.

**D**UCKS are heavy eaters and require more bulky food than chickens. It is not a good plan to change the rations of ducks quickly. It should be done gradually. Access to plenty of drinking water and green food should also be provided.

**I**N FEEDING mash foods to young chicks the mash should never be sloppy, but just damp enough to adhere without being a mush.

**S**CABBY formation on the legs of poultry can be removed by a mixture of two parts lard and one part kerosene oil.

**I**T IS well to remember that proper feeding methods not only produce more eggs, but the eggs have a better quality and a firmer shell.

**T**O PREVENT head lice in little chicks rub a little sweet oil on the top of the head and around the bill when they are taken from the nest.

**T**HE KEENEWICK-RICHLAND Marketing Union was recently ordered placed in the hands of a receiver. The financial straits of the union are said to be due to over-expansion on too small a sinking fund. The business, it is reported, will probably be continued under the receivership.

SIMONS, SHUTTLEWORTH & CO., Liverpool and Manchester

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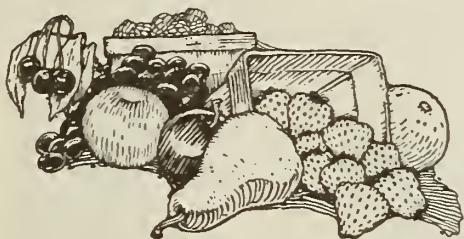
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With the right kind of fertilization riper fruits can be harvested and shipped, and still reach the consumer in satisfactory condition.

The improved flavor, odor, and appearance of such fruits help sales in wholesale and retail markets.

The fertilizer for fruit should be well balanced, and contain from 7 to 10 per cent. of Potash.

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LOGANBERRY plants for sale direct from the grower. J. P. Aspinwall, Brooks, Oregon.

CHOICE Loganberry Plants, healthy stock. Reasonable prices. Write for quotations. R. C. Deming, Estacada, Oregon.

STRAWBERRY plants, Marshall, Gold Dollar, Ideal, \$5 per thousand postpaid. John Myers, Rochester, Wash.

SEND FOR OUR NEW PRICE LIST on fruit trees, berry bushes, shade trees and roses. Krause Nursery, Spokane, Washington.

CORY Thornless Mammoth Blackberry, originated here at Mountain Pass Ranch. Strong plants, \$3 dozen, postpaid; also Phenomenal, Loganberry, Gooseberry, Currant and Giant Crimson Rhubarb. G. S. Wills, Jamestown, California.

STRAWBERRY plants. 100,000 Gold Dollar and New Oregon, \$5 per 1,000; Cuthbert and Mariboro Raspberry plants, \$2.50 per 100. Lawson Nursery, Gates, Oregon.

SUPERB AND PROGRESSIVE EVERBEARING strawberry plants will solve your fruit question; 100 plants should give you 100 to 200 pts. berries this season if planted early in good soil, kept clean, moist and runners off. They come well packed to you, guaranteed, inspected and prepaid by insured parcel post at: 100, \$1.40; 500 at \$6; 1000, \$11; 2 Lucretia dewberry plants free with first 1000 orders; Lucretia dewberry plants, 75c per dozen, prepaid. N. B. Matthiesson, Model Fruit Farm, Emmett, Idaho.

TREES—All kinds of fruit and ornamental trees, vines, etc. Growers of general nursery stock. Lowest quotations given on application. Send us your want list. Can also use a few good salesmen. Albany Nurseries, Albany, Ore.

### FARMS FOR SALE

WANTED—To hear from owner of good ranch for sale. State cash price, full particulars. D. F. Bush, Minneapolis, Minn.

WANT to hear from parties having farm for sale. Give particulars and lowest price. John J. Black, 197th St., Chippewa Falls, Wisconsin.

CUT-OVER and Developed Lands, 15 to 25 miles N. E. Spokane; extra good soil; spring brooks; grows grain, vegetables, hay, fruits; several developed ranches; few stock ranches; \$10 to \$20 acre; 10 years' time, 6 per cent interest. Free lumber. Write owners for free book. Edwards & Bradford Lumber Co., Elk, Washington.

FARMS WANTED—Can sell your farm or property readily if price is reasonable. Send full particulars. Charles Peterson, 2704 N. Hamlin Ave., Chicago, Ill.

CALIFORNIA FARMS for sale. Write for list. E. R. WAITE, Shawnee, Oklahoma.

EXCEPTIONAL ORCHARD BARGAIN—50 acres fine bearing apple orchard, best varieties, in good district; has had best care and attention and is in excellent condition; attractive buildings with running water in them; fully stocked and equipped for operating; should produce 6000 packed boxes this year. Offers for \$18,000; \$5000 down, balance can be paid out of crop. Luddemann Co., 913 Chamber of Commerce Bldg., Portland, Oregon.

30 ACRES of high grade, 11-year-old Apple Orchard. Commercial varieties. Entire place seeded to Alfalfa. Gravity flow irrigation. First class business and home. 1919 receipts over \$13,000.00. Priced right, and will take in trade some good income city property. Address, Dept. A, Better Fruit Pub. Co.

### POULTRY

S. C. W. L. HATCHING EGGS, Hollywood Strain, \$7.00 in 100 lots. Mrs. Rominger, Underwood, Wash.

BABY CHICKS—"Only the best." May and June delivery. White and Brown Leghorns, R. I. Reds, Barred Rocks. Safe arrival guaranteed. All vigorous chicks from good layers. Send for circular. Stubbe Poultry Ranch and Hatchery, P. O. Box 67-L, Palo Alto, Cal.

BABY CHIX—TANCREDS 300-egg White Leghorns, Barred and White Rocks, R. I. Reds, Buff Orpingtons, Anconas, Black Minorcas, Golden Buff and Brown Leghorns. Enoch Crews, Seabright, Calif.

MINORCAS, black, white; utility and exhibition. Eggs. Catalog free. C. E. Murray, route 1, San Diego, Cal.

S. C. WHITE LEGHORN CHICKS May 2 and 24 delivery, \$15.00 per 100. Standard Poultry Farm, Monmouth, Oregon.

DAY-OLD CHICKS FOR SALE. O. A. C. White Leghorns; also eggs for hatching. J. L. Russell, Rt. 3, Corvallis, Oregon.

A FEW choice Cockerels—R. I. Reds and Whites, both combs. Dark red and pure white. High grade quality. Show winners. Bred from best strains in America. Mammoth Toulouse Geese. Winners. Mammoth Bronze Turkeys. Bird Bros. strain. Egg orders solicited. Highland Fruit and Poultry Ranch, J. Nonnenmacher, R. 3, Yakima, Wash.

### SALESMEN WANTED

MEN with proven ability capable of selling a line of high grade nursery stock on a commission contract. Weekly cash advance. Splendid territory may be had by answering immediately. SALEM NURSERY CO. 427 Oregon Building Salem, Oregon

### MISCELLANEOUS

THE CUTLER FRUIT GRADER is the LEADER Nearly 1,000 now in use. The market demands well-sized fruit. Use a CUTLER GRADER and better your pack. Built for both box and barrel packing—in small and large models. Send for literature. Cutler Mfg. Co., 353 E. 10th St., Portland, Oregon.

TOBACCO—Kentucky's Homespun Smoking or chewing; mild or strong; fine grade; aged and mellowed, like old wine in the cellar; 10 lbs., \$3.50, 15 lbs., \$4.75, 5-lb. sample, \$2.00, postpaid. Reference First National Bank. Waldrop Brothers, Murray, Ky.

U. S. NAVY TENTS SPECIAL—While they last—9x9, 12-ounce at \$12.00. These are fine value and make pretty cheap housing for your extra help. Also have limited number tent flies—fine for wagon covers—10x15, \$9.00. Alaska Junk Co., 203 Front St., Portland, Oregon.

ARROW CARBOLINEUM kills chicken mites in poultry houses. Preserves wood against rot and premature decay. Write for circular and prices. Carbolineum Wood Preserving Co., 222 E. Water St., Portland, Oregon.

TOBACCO—KENTUCKY'S Homespun Smoking or chewing. Mild or strong. Fine grade. Rich and mellow. Smoking 10 lbs. \$2.50. Chewing and smoking, 15 lbs. \$4.50. 5 lbs. sample, \$2.00. Reference, Bank of Murray, WALDROP BROS Murray, Ky.

FREE SAMPLE—(Huban) annual sweet clover (scarified). Genuine Hughes strain. 2c postage. Jas. H. Kitchen, R. 5-Springfield, Ohio.

GROW Ginseng. \$12 per lb.; many others. How to know them. How to grow them. Send for Free Instruction Book and Price List. Twitchell Co., West Milan, N. H.

### BEEKEEPERS MEET

WITH an attendance representing most of the sections of the state, the Oregon State Beekeepers' Association recently held an interesting meeting in Portland. It developed during the meeting that 10,000 persons in the state are keeping bees in either a small or a large way and it is estimated that 80,000 stands of bees are maintained in the state. Many of the beekeepers are also fruitgrowers. In discussing the poisoning of bees from spray applied to fruit trees it was the sentiment of the meeting that more can be accomplished in eliminating this trouble by education and co-operation between the beekeepers and fruit-growers than to attempt to secure legislation in regard to the matter. It was stated that if fruit-growers would apply the first spray for the codling moth just after the petals had fallen the damage to bees from this source would be reduced to the minimum. The Oregon association has affiliated with the national organization and a campaign will be started to organize associations in each county. A. J. Sanford, of Redmond, was re-elected president; N. D. Baker, of Knappa, vice-president and H. A. Scullen of the Oregon Agricultural College, secretary-treasurer.

### APPLE DISTRIBUTION

IT IS interesting to know that apples shipped from the Pacific Northwest have a wider distribution than any other commodity shipped from one section. Reports to the United States Department of Agriculture from public carriers for the last five years show that 2,567 cities were used as distributing points. Telegraphic reports from railroads during the season of 1919-20 showed that 1,400 cities received carlot shipments from the Pacific Northwest. It is safe, therefore, to assume that complete diversion information would show a very much larger number of cities to which shipments were made.

## TREES AND SHRUBS



Fruit trees budded from bearing orchards. Apple, Pear, Cherry, Peach, Plum, Prune, Apricot, Quince, Grape Vines, Shrubbery, Plants, Raspberries, Blackberries, Logans, Dewberries, Asparagus, Rhubarb, Flowering Shrubs, Roses, Vines, Hedge, Nut and Shade Trees. Carriage paid. Satisfaction guaranteed.

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The **International 8-16**, because of its light weight, snug compactness, ease of control, generous reserve power above its rating for emergency pulls, three speeds forward, economical operation and general fitness for diversified service, is highly popular with farmers in every branch of agriculture.

Fifteen years of tractor building experience and over three-quarters of a century of general farm machine success, backed by a broad-as-agriculture reputation for fair dealing, good quality and dependable after-sale service—these factors are your assurance of satisfaction when you buy an **International 8-16 Kerosene Tractor**.

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